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U. S. DEPARTMENT OF AGRICULTURE,

WEATHER BUREAU.

TABLES

FOR OBTAINING THE

TEMPERATURE OF THE DEW-POINT, RELATIVE HUMIDITY, ETC.

PREPARED UNDER DIRECTION OF

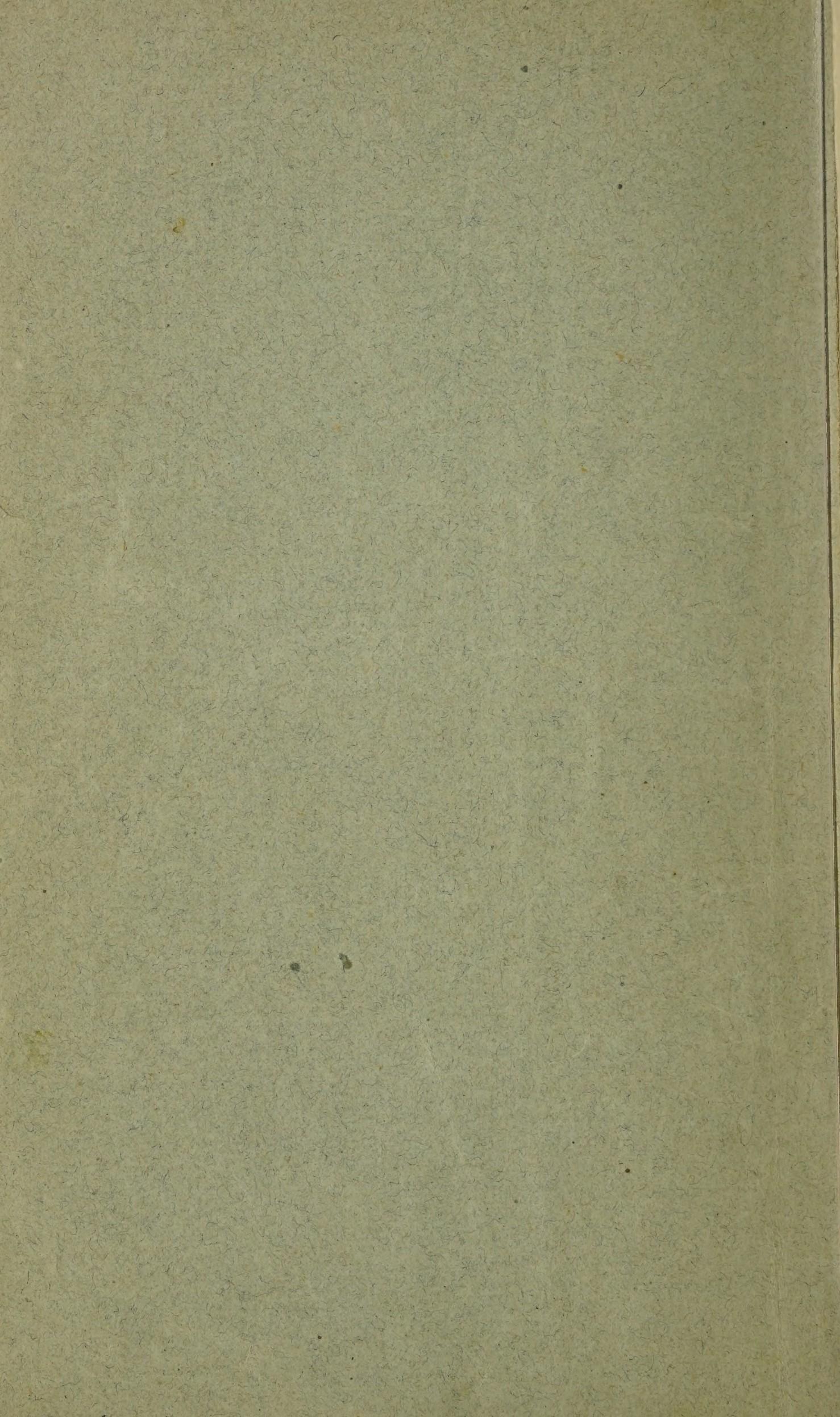
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CHIEF OF WEATHER BUREAU.

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NOTE.

The accompanying tables formed a part (pages 69 to 98) of the "Instructions for Voluntary Observers," issued in 1892, now superseded by the edition of 1897, which does not contain the tables. They have been separated from the obsolete instructions and bound in this manner to meet the needs of such observers as may have use for them.

INSTRUCTIONS IN THE USE OF THE TABLES.

TABLE I.—DEW POINT.

In Table I are given the temperatures of the dew point as dependent on the reading of the dry and wet bulb thermometers. The values apply to roof shelters and whirled wet and dry bulb thermometers, but may be used without much error for all shelters well ventilated. The formula from which the table is derived (Ferrel's) for dew points below 32° is:

$p = p' - 0.000360 P(t - t')(1 + 0.00065 t')$, and for dew points above 32° :

$p = p' - 0.000367 P(t - t')(1 + \frac{t - t'}{1571})$, in which,

p =vapor pressure of saturation at the dew point temperature.

p' =vapor pressure of saturation at the wet bulb temperature.

P =barometric pressure taken as 29.4 inches in computing the tables.

t =dry thermometer.

t' =wet thermometer.

Example.

To find the dew point for the reading of the dry bulb $60^{\circ}0$ and the wet bulb $48^{\circ}0$, entering the table on page 75 with $t=60$ and $t-t'=12$, we find the dew-point 35° .

There is a small correction to be applied to the value, if great accuracy is desired, when the barometric pressure differs from 29.4 inches. This is obtained by the use of Table III, in connection with Table IV. Having found the dew point, the vapor pressure corresponding to it is taken from Table IV; in the example above for 35° it is 0.203 . By means of Table III, with the air pressure, say 27.0 inches, and for the difference of dry and wet bulb 12° , the correction to the vapor pressure is found to be $+0.010$. The vapor pressure corrected is then 0.213 , and by Table IV the corresponding dew point is 36° .

TABLE II.—RELATIVE HUMIDITY.

In Table II are given the relative humidities corresponding to the reading of dry and wet bulb thermometers. The relative humidity of the air at any time is the percentage of moisture contained in the air as compared with the whole amount it is capable of holding for the particular temperature at the time. Air containing no moisture is at zero relative humidity; when saturated the relative humidity is 100.

Example.

To find the relative humidity for the reading of the dry bulb $60^{\circ}0$ and the wet-bulb $48^{\circ}0$, entering the table on page 85 with $t=60^{\circ}$ and $t-t'=12$, we find the relative humidity 39 per cent.

If it is desired to correct the value for the pressure of 27.0 inches, the procedure is as follows:

In correcting the dew-point for pressure the corrected value in example given above was 36° . On page 75 in the column for $t-t'=12$, the corrected value of 36° is one line lower than the original uncorrected value 35° . Taking the corresponding value of the relative humidity in Table II on page 85, one line lower than 39 in the column for $t-t'=12$, we have the corrected relative humidity 40 instead of 39.

Tables III and IV are auxiliary to Tables I and II.

TABLE IV.

Table IV gives the vapor pressure at saturation for various temperatures. The values for temperatures above 32° are the Regnault Broch values; below 32° to -60° they are Marvin's values observed at the Weather Bureau office, Washington City (see report of Chief Signal Officer for the year 1891).

TABLE V.—ABSOLUTE HUMIDITY.

Table V gives the weight of vapor contained in the air per cubic foot of air when saturated at different temperatures.

At a temperature of 43° , for instance, when saturated, the weight of vapor contained is 3.177 grains of water. The weight of vapor contained in the air at different vapor pressures is nearly proportional to the pressures.

TABLE VI.—REDUCTION OF BAROMETER TO 32° .

To reduce the barometer reading to the temperature of 32° , enter Table VI with the observed reading and the temperature as shown by the attached thermometer. For example, suppose the reading is 28.50 and the attached thermometer 73° , the reduction is -0.114, or that amount is to be subtracted from the reading to give the pressure for the temperature of the instrument at 32° .

The reduction is additive below 29° and subtractive above.

TABLE VII.—REDUCTION OF BAROMETER TO SEA LEVEL.

Table VII gives the approximate reduction to be applied to an observation of pressure to reduce it to sea level. The following example will show its use: Suppose the height of the station is 670 feet, and the temperature of the outside air obtained from the dry bulb thermometer at the time of the observation is 45° , then the reduction would be .737 or .74; this amount is to be added to the observed barometer reading to reduce it to sea level. In using the table, observers should construct one in manuscript, after learning the height of the station; this should be carried out to every degree of air temperature for the height of the station as found in the left-hand column.

TABLE I.—Temperature of the dew point, in degrees Fahrenheit.

<i>t</i> (Dry ther.)	Difference between the dry and wet thermometers (<i>t</i> - <i>t'</i>)												<i>t</i> (Dry ther.)	<i>t</i> (Dew Point.)	
	0°.2	0°.4	0°.6	0°.8	1°.0	1°.2	1°.4	1°.6	1°.8	2°.0	2°.2	2°.4	2°.6		
-40	-52													-40	
-39	-50													-39	
-38	-49													-38	
-37	-48													-37	
-36	-46													-36	
-35	-44													-35	
-34	-43	-58												-34	
-33	-42	-55												-33	
-32	-40	-52												-32	
-31	-38	-49												-31	
-30	-36	-47												-30	
-29	-35	-44												-29	
-28	-33	-42	-56											-28	
-27	-32	-40	-52											-27	
-26	-30	-37	-48											-26	
-25	-29	-35	-45											-25	
-24	-28	-34	-43	-58										-24	
-23	-27	-32	-40	-53										-23	
-22	-26	-30	-37	-49										-22	
-21	-25	-29	-35	-45										-21	
-20	-23	-28	-33	-41	-55									-20	
-19	-22	-26	-31	-38	-50									-19	
-18	-21	-25	-29	-35	-45									-18	
-17	-20	-23	-27	-32	-41	-55								-17	
-16	-19	-22	-26	-30	-37	-49								-16	
-15	-17	-20	-24	-28	-34	-44								-15	
-14	-16	-19	-22	-26	-31	-39	-52							-14	
-13	-15	-18	-21	-25	-29	-35	-46							-13	
-12	-14	-17	-20	-23	-27	-32	-41	-55						-12	
-11	-13	-16	-18	-21	-25	-30	-36	-48						-11	
-10	-12	-14	-17	-20	-23	-27	-33	-42	-58					-10	
-9	-11	-13	-15	-18	-21	-25	-30	-37	-48					-9	
-8	-10	-12	-14	-17	-20	-23	-27	-33	-42	-58				-8	
-7	-9	-11	-13	-15	-18	-21	-25	-30	-36	-48				-7	
-6	-8	-10	-12	-14	-16	-19	-23	-27	-32	-41	-56			-6	
-5	-7	-8	-10	-12	-15	-17	-21	-24	-29	-35	-47			-5	
-4	-6	-7	-9	-11	-13	-16	-19	-22	-26	-31	-39	-54		-4	
-3	-4	-6	-8	-10	-12	-14	-17	-20	-23	-28	-33	-44		-3	
-2	-3	-5	-6	-8	-10	-12	-15	-18	-21	-24	-29	-36	-48	-2	
-1	-2	-4	-5	-7	-9	-11	-13	-16	-18	-22	-26	-31	-39	-1	
± 0	-1	-3	-4	-6	-7	-9	-11	-14	-16	-19	-23	-27	-33	0	
+ 1	-0	-2	-3	-4	-6	-8	-10	-12	-14	-17	-20	-24	-28	+ 1	
+ 2	+ 1	-1	-2	-3	-5	-6	-8	-10	-12	-15	-17	-21	-25	+ 2	
+ 3	+ 2	+ 1	-1	-2	-3	-5	-7	-8	-10	-13	-15	-18	-21	+ 3	
+ 4	+ 3	+ 2	0	-1	-2	-4	-5	-7	-9	-11	-13	-16	-19	+ 4	
5	4	3	+ 1	0	-1	-2	-4	-5	-7	-9	-11	-14	-16	5	
6	5	4	3	+ 1	0	-1	-3	-4	-6	-7	-9	-12	-14	6	
7	6	5	4	3	+ 1	0	-1	-3	-4	-6	-8	-10	-12	7	
8	7	6	5	4	3	+ 1	0	-1	-3	-4	-6	-8	-10	8	
9	8	7	6	5	4	3	+ 1	0	-1	-3	-4	-6	-8	9	
10	9	8	7	6	5	4	3	+ 1	0	-1	-3	-4	-6	10	
11	10	9	8	7	6	5	4	3	+ 2	-0	-1	-3	-4	11	
12	11	10	9	8	7	5	4	3	+ 2	0	-1	-2	-2	12	
13	12	11	11	10	9	8	7	6	5	3	+ 2	+ 1	-1	13	
14	13	12	12	11	10	9	8	7	6	5	4	2	+ 1	14	
15	14	13	13	12	11	10	9	8	7	6	5	4	3	15	
16	15	15	14	13	12	11	10	9	8	7	5	4	4	16	
17	16	16	15	14	13	12	11	10	9	8	7	6	6	17	
18	17	17	16	15	14	13	12	11	10	9	8	7	7	18	
19	18	18	17	16	15	14	13	12	11	10	9	8	9	19	
20	19	19	18	17	17	16	15	14	13	13	12	11	10	20	
<i>t.</i>	0°.2	0°.4	0°.6	0°.8	1°.0	1°.2	1°.4	1°.6	1°.8	2°.0	2°.2	2°.4	2°.6	<i>t.</i>	

TABLE I.—Temperature of the dew point, in degrees Fahrenheit.

t (Dry ther.)	Difference between the dry and wet thermometers ($t-t'$).										t (Dry ther.)
	2°.6	2°.8	3°.0	3°.2	3°.4	3°.6	3°.8	4°.0	4°.2	4°.4	
-2	-48										-12
-1	-39	-54									-11
0	-33	-43									0
+1	-28	-35	-46								+1
2	-25	-30	-37	-50							2
3	-21	-26	-31	-39	-54						3
4	-19	-22	-27	-32	-42	-60					4
5	-16	-19	-23	-28	-34	-45					5
6	-14	-17	-20	-24	-29	-35	-47				6
7	-12	-14	-17	-20	-24	-29	-37	-50			7
8	-10	-12	-15	-17	-21	-25	-30	-38	-53		8
9	-8	-10	-12	-15	-18	-21	-25	-31	-39	-55	9
10	-6	-8	-10	-12	-15	-18	-21	-26	-31	-40	10
11	-4	-6	-8	-10	-12	-15	-18	-21	-26	-31	11
12	-2	-4	-6	-8	-10	-12	-15	-18	-21	-26	12
13	-1	-2	-4	-5	-7	-9	-12	-14	-17	-21	13
14	+1	0	-2	-3	-5	-7	-9	-11	-14	-17	14
15	3	+1	0	-2	-3	-5	-7	-9	-11	-14	15
16	4	3	+2	0	-1	-3	-4	-6	-8	-10	16
17	6	5	3	+2	+1	-1	-2	-4	-6	-8	17
18	7	6	5	4	2	+1	0	-2	-3	-5	18
19	9	8	7	5	4	3	+1	0	-1	-3	19
20	10	9	8	7	6	5	3	+2	+1	-1	20
$t.$	2°.6	2°.8	3°.0	3°.2	3°.4	3°.6	3°.8	4°.0	4°.2	4°.4	$t.$
$t.$	4°.6	4°.8	5°.0	5°.2	5°.4	5°.6	5°.8	6°.0	6°.2	6°.4	$t.$
8											8
9											9
10	-57										10
11	-41	-60									11
12	-31	-41	-59								12
13	-25	-31	-40	-58							13
14	-20	-25	-30	-39	-56						14
15	-16	-20	-24	-30	-38	-53					15
16	-13	-16	-19	-23	-28	-36	-50				16
17	-10	-12	-15	-18	-22	-27	-34	-47			17
18	-7	-9	-12	-14	-17	-21	-26	-32	-44		18
19	-5	-7	-9	-11	-14	-17	-20	-25	-30	-40	19
20	-2	-4	-6	-8	-10	-13	-16	-19	-23	-29	20
$t.$	4°.6	4°.8	5°.0	5°.2	5°.4	5°.6	5°.8	6°.0	6°.2	6°.4	$t.$

TABLE I.—Temperature of the dew point, in degrees Fahrenheit.

t (Dry ther.)	Difference between the dry and wet thermometers ($t - t'$).													t' (Dry ther.)
	0°.5	1°.0	1°.5	2°.0	2°.5	3°.0	3°.5	4°.0	4°.5	5°.0	5°.5	6°.0		
20	18	17	15	13	10	8	5	2	-2	-6	-12	-19	20	
21	19	18	16	14	12	9	7	4	0	-4	-8	-15	21	
22	20	19	17	15	13	11	8	6	+2	-1	-6	-11	22	
23	22	20	18	16	14	12	10	7	4	+1	-3	-8	23	
24	23	21	19	18	16	14	11	9	6	3	-1	-5	24	
25	24	22	21	19	17	15	13	11	8	5	+2	-2	25	
26	25	23	22	20	18	16	14	12	10	7	4	0	26	
27	26	24	23	21	20	18	16	14	11	9	6	+3	27	
28	27	25	24	22	21	19	17	15	13	11	8	5	28	
29	28	26	25	24	22	20	19	17	14	12	10	7	29	
30	29	27	26	25	23	22	20	18	16	14	11	9	30	
31	30	29	27	26	24	23	21	19	18	15	13	11	31	
32	31	30	28	27	26	24	22	21	19	17	15	13	32	
33	31	31	29	28	26	25	23	22	19	18	16	14	33	
34	32	32	30	29	27	26	24	24	21	20	18	16	34	
35	33	32	31	30	29	28	26	25	23	22	20	18	35	
36	35	34	32	31	30	29	27	26	24	23	21	19	36	
37	36	35	33	32	31	30	28	27	26	24	22	21	37	
38	37	36	34	33	32	31	30	28	27	26	24	22	38	
39	38	37	35	34	33	32	30	29	28	27	25	24	39	
40	39	38	36	35	34	33	31	30	29	28	26	25	40	
41	40	39	37	36	35	34	32	32	30	29	28	26	41	
42	41	40	39	38	36	35	34	33	31	30	29	27	42	
43	42	41	40	39	37	36	35	34	32	31	30	29	43	
44	43	42	41	40	38	37	36	35	33	32	31	30	44	
45	44	43	42	41	40	39	37	36	34	33	32	31	45	
46	45	44	43	42	41	40	38	37	36	35	33	32	46	
47	46	45	44	43	42	41	40	39	37	36	34	33	47	
48	47	46	45	44	43	42	41	40	38	37	36	35	48	
49	48	47	46	45	44	43	42	41	39	38	37	36	49	
50	49	48	47	46	45	44	43	42	41	40	38	37	50	
51	50	49	48	47	46	45	44	43	42	41	39	38	51	
52	51	50	49	48	47	46	45	44	43	42	41	40	52	
53	52	51	50	49	48	47	46	45	44	43	42	41	53	
54	53	52	51	50	50	49	47	46	45	44	43	42	54	
55	54	53	52	51	50	49	48	47	46	44	43	42	55	
56	55	54	53	52	51	50	49	48	47	45	44	43	56	
57	56	55	54	53	52	51	50	49	48	47	46	45	57	
58	57	56	55	54	53	52	51	50	49	48	47	46	58	
59	58	57	56	55	54	53	52	51	50	49	48	47	59	
60	59	58	58	57	56	55	54	53	52	51	50	49	60	
61	60	59	59	58	57	56	55	54	53	52	51	50	61	
62	61	60	60	59	58	57	56	55	54	53	52	51	62	
63	62	61	61	60	59	58	57	56	55	55	54	53	63	
64	63	62	62	61	60	59	58	57	56	56	55	54	64	
65	64	63	63	62	61	60	59	58	57	56	55	55	65	
66	65	64	64	63	62	61	60	59	58	57	56	56	66	
67	67	66	65	64	63	62	61	60	59	58	57	57	67	
68	68	67	66	65	64	63	62	61	60	59	58	58	68	
69	69	68	67	66	65	64	63	62	61	60	59	59	69	
70	70	69	68	67	67	66	65	64	63	62	61	61	70	
71	71	70	69	68	68	67	66	65	64	63	62	62	71	
72	72	71	70	69	68	67	66	65	64	63	63	63	72	
73	73	72	71	70	69	68	67	66	65	65	64	64	73	
74	74	73	72	71	71	70	69	68	67	67	66	65	74	
75	75	74	73	72	72	71	70	69	68	68	67	66	75	
76	76	75	74	73	73	72	71	70	69	69	68	67	76	
77	77	76	75	74	74	73	72	71	70	70	69	68	77	
78	78	77	76	75	75	74	73	72	71	71	70	69	78	
79	79	78	77	76	76	75	74	73	72	72	71	70	79	
80	80	79	78	77	77	76	75	74	73	73	72	72	80	
t .	0°.5	1°.0	1°.5	2°.0	2°.5	3°.0	3°.5	4°.0	4°.5	5°.0	5°.5	6°.0	t .	

TABLE I.—Temperature of the dew point, in degrees Fahrenheit.

t (Dry ther.)	Difference between the dry and wet thermometers ($t-t'$)													t (Dry ther.)
	6°.0	6°.5	7°.0	7°.5	8°.0	8°.5	9°.0	9°.5	10°.0	10°.5	11°.0	11°.5	12°.0	
19	-25													19
20	-19	-32												20
21	-15	-24	-47											21
22	-11	-19	-31											22
23	-8	-14	-24	-45										23
24	-5	-10	-18	-30										24
25	-2	-7	-13	-22	-42									25
26	0	-4	-9	-17	-28									26
27	+3	-1	-6	-12	-20	-37								27
28	5	+1	-3	-8	-15	-25	-54							28
29	7	4	0	-4	-10	-18	-32							29
30	9	6	+2	-2	-6	-13	-22	-43						30
31	11	8	5	+1	-3	-8	-15	-27						31
32	13	10	7	4	0	-4	-10	-18	-33					32
33	14	12	9	6	+3	-1	-6	-12	-22	-44				33
34	16	14	11	8	6	+2	-2	-8	-15	-27				34
35	18	15	13	10	8	5	+1	-4	-9	-18	-32			35
36	19	17	15	12	10	8	4	0	-5	-12	-20	-42		36
37	21	19	17	14	12	9	6	+3	-2	-6	-14	-25	-52	37
38	22	20	19	16	14	11	9	6	+2	-2	-8	-16	-29	38
39	24	22	20	18	16	14	11	8	5	+1	-4	-10	-18	39
40	25	23	22	20	18	16	13	11	8	4	0	-5	-12	40
41	26	25	23	21	20	17	15	13	10	7	+4	-1	-6	41
42	27	26	24	23	21	19	18	15	12	10	7	+3	-2	42
43	29	27	26	24	23	21	19	17	14	12	9	6	+2	43
44	30	28	27	26	24	22	20	18	16	14	12	9	6	44
45	31	30	28	27	25	24	22	20	18	16	13	11	8	45
46	32	31	30	28	27	25	24	22	20	18	16	13	11	46
47	33	32	31	29	28	26	25	23	22	20	18	15	13	47
48	35	33	32	30	29	28	26	25	23	21	20	17	15	48
49	36	34	33	32	31	29	28	26	25	23	21	19	17	49
50	37	35	34	33	32	31	29	28	26	24	23	21	19	50
51	38	37	36	34	33	32	31	29	28	26	24	22	21	51
52	40	38	37	36	34	33	32	30	29	28	26	24	23	52
53	41	39	38	37	36	34	33	32	30	29	28	26	24	53
54	42	41	40	39	37	36	34	33	32	30	29	27	26	54
55	43	42	41	40	39	37	36	34	33	32	30	29	28	55
56	44	43	42	41	40	39	37	36	34	33	32	30	29	56
57	46	45	44	42	41	40	39	37	36	35	33	32	30	57
58	47	46	45	44	42	41	40	39	37	36	35	33	32	58
59	48	47	46	45	44	43	41	40	39	38	36	35	33	59
60	49	48	47	46	45	44	43	41	40	39	38	36	35	60
61	50	49	48	47	46	45	44	43	42	41	39	38	36	61
62	52	51	50	49	48	47	45	44	43	42	41	39	38	62
63	53	52	51	50	49	48	47	45	44	43	42	41	39	63
64	54	53	52	51	50	49	48	47	46	45	43	42	41	64
65	55	54	53	52	51	50	49	48	47	46	45	43	42	65
66	56	55	54	53	52	51	50	49	48	47	46	45	44	66
67	57	56	55	54	53	52	51	50	48	47	46	45	45	67
68	58	57	57	56	55	54	53	52	51	50	49	47	46	68
69	59	58	58	57	56	55	54	53	52	51	50	49	48	69
70	61	60	59	58	57	56	55	54	53	52	51	50	49	70
71	62	61	60	59	58	57	56	55	55	54	53	52	51	71
72	63	62	61	60	59	59	58	57	56	55	54	53	52	72
73	64	63	62	61	60	59	58	57	56	55	54	53	52	73
74	65	64	63	63	62	61	60	59	58	57	56	55	54	74
75	66	65	64	64	63	62	61	60	59	58	57	56	56	75
76	67	66	65	65	64	63	62	61	61	60	59	58	57	76
77	68	67	67	66	65	64	63	62	62	61	60	59	58	77
78	69	68	68	67	66	66	65	64	63	62	61	60	59	78
79	70	69	69	68	67	67	66	65	64	63	62	61	61	79
80	72	71	70	69	68	68	67	66	65	64	63	62	62	80

TABLE I.—Temperature of the dew point, in degrees Fahrenheit.

<i>t</i> (Dry ther.)	Difference between the dry and wet thermometers ($t-t'$).													<i>t</i> (Dry ther.)
	12°.0	12°.5	13°.0	13°.5	14°.0	14°.5	15°.0	15°.5	16°.0	16°.5	17°.0	17°.5	18°.0	
40	-12	-22	-44											40
41	-6	-13	-25											41
42	-2	-7	-15	-28										42
43	+2	-3	-8	-17	-33	-40								43
44	6	+1	-4	-10	-19	-40								44
45	8	5	0	-4	-11	-22	-48							45
46	11	8	+4	0	-5	-13	-24							46
47	13	10	7	+3	-1	-6	-14	-27						47
48	15	12	10	6	+2	-2	-8	-16	-30					48
49	17	14	12	9	6	+2	-3	-9	-18	-35				49
50	19	16	14	12	9	5	+1	-4	-10	-20	-42			50
51	21	18	17	14	11	8	5	0	-5	-12	-22	-52		51
52	23	21	19	16	14	11	8	+4	0	-6	-13	-25		52
53	24	22	20	18	16	14	11	8	+4	-1	-6	-14	-28	53
54	26	24	22	20	18	16	13	10	7	+3	-2	-8	-16	54
55	28	26	24	22	20	18	16	13	10	7	+3	-2	-8	55
56	29	27	26	24	22	20	18	15	13	10	6	+2	-2	56
57	30	29	28	26	24	22	20	18	15	13	10	6	+2	57
58	32	30	29	27	26	24	22	20	18	15	12	9	6	58
59	33	32	31	29	27	26	24	22	20	18	15	12	9	59
60	35	33	32	30	29	27	26	24	22	20	18	15	12	60
61	36	35	33	32	31	29	28	26	24	22	20	18	15	61
62	38	37	35	34	32	31	29	28	26	24	22	20	18	62
63	39	38	37	35	34	32	31	29	28	26	24	22	20	63
64	41	39	38	37	35	34	32	31	29	28	26	24	22	64
65	42	41	40	38	37	35	34	32	31	29	28	26	24	65
66	44	43	41	40	38	37	35	34	32	31	30	28	26	66
67	45	44	43	41	40	39	37	36	34	32	31	30	28	67
68	46	45	44	43	42	40	39	38	36	34	33	31	30	68
69	48	47	46	45	43	42	40	39	38	36	34	33	32	69
70	49	48	47	46	45	43	42	41	39	38	36	35	33	70
71	51	49	48	47	46	45	43	42	41	39	38	36	35	71
72	52	51	50	49	47	46	45	44	43	41	40	38	37	72
73	53	52	51	50	49	48	46	45	44	43	41	40	38	73
74	54	53	52	51	50	49	48	47	45	44	43	41	40	74
75	56	55	54	53	52	50	49	48	47	45	44	43	42	75
76	57	56	55	54	53	52	50	49	48	47	46	45	43	76
77	58	57	56	55	54	53	52	51	50	49	48	46	45	77
78	59	58	57	56	55	54	53	52	51	50	49	48	47	78
79	61	60	59	58	57	56	55	54	53	52	51	49	48	79
80	62	61	60	59	58	57	56	55	54	53	52	51	50	80
<i>t.</i>	12°.0	12°.5	13°.0	13°.5	14°.0	14°.5	15°.0	15°.5	16°.0	16°.5	17°.0	17°.5	18°.0	<i>t.</i>

TABLE I.—Temperature of the dew point, in degrees Fahrenheit.

		Difference between the dry and wet thermometers ($t-t'$).														
t (Dry ther.)		18°.0	19°.0	20°.0	21°.0	22°.0	23°.0	24°.0	25°.0	26°.0	27°.0	28°.0	29°.0	30°.0	t (Dry ther.)	
55	-8														55	
56	-2	-19													56	
57	+2	-10	-48												57	
58	6	-3	-22												58	
59	9	+1	-12												59	
60	12	5	-5	-25											60	
61	15	9	0	-14											61	
62	18	12	+5	-6	-28										62	
63	20	15	9	0	-14										63	
64	22	18	12	+4	-6	-32									64	
65	24	20	15	9	0	-16									65	
66	26	22	18	12	+4	-7	-34								66	
67	28	24	20	15	9	-1	-16								67	
68	30	26	23	18	12	+4	-7	-37							68	
69	32	28	25	20	15	8	0	-17							69	
70	33	30	27	23	19	12	+5	-7	-39						70	
71	35	32	29	25	21	16	9	0	-17						71	
72	37	33	31	27	23	18	13	+5	-6	-39					72	
73	38	35	32	29	25	21	16	10	0	-16					73	
74	40	37	34	31	28	24	19	13	+6	-6	-37				74	
75	42	39	36	32	30	26	22	16	10	0	-16				75	
76	43	41	38	34	32	28	24	20	14	+6	-6	-34			76	
77	45	42	40	36	33	30	26	22	17	11	+1	-14			77	
78	47	44	41	38	35	32	28	24	20	14	7	-4	-30		78	
79	48	46	43	40	37	34	31	27	23	18	11	+2	-13		79	
80	50	47	45	42	39	36	32	29	25	21	15	8	-3		80	
t .	18°.0	19°.0	20°.0	21°.0	22°.0	23°.0	24°.0	25°.0	26°.0	27°.0	28°.0	29°.0	30°.0	t .		

TABLE I.—Temperature of the dew point, in degrees Fahrenheit.

t (Dry ther.)	Difference between the dry and wet thermometers ($t - t'$).												t (Dry ther.)
	1°.0	2°.0	3°.0	4°.0	5°.0	6°.0	7°.0	8°.0	9°.0	10°.0	11°.0	12°.0	
80	79	77	76	74	73	72	70	68	67	65	63	62	80
81	80	78	77	75	74	73	71	70	68	66	65	63	81
82	81	79	78	77	75	74	72	71	69	68	66	64	82
83	82	80	79	78	76	75	73	72	70	69	67	65	83
84	83	81	80	79	77	76	74	73	71	70	68	67	84
85	84	82	81	80	78	77	75	74	72	71	69	68	85
86	85	83	82	81	79	78	76	75	73	72	71	69	86
87	86	84	83	82	80	79	78	76	74	73	72	70	87
88	87	85	84	83	81	80	79	77	75	74	73	71	88
89	88	86	85	84	82	81	80	78	76	76	74	72	89
90	89	87	86	85	84	82	81	79	78	77	75	74	90
91	90	88	87	86	85	83	82	80	79	78	76	75	91
92	91	89	88	87	86	84	83	82	80	79	77	76	92
93	92	91	89	88	87	85	84	83	81	80	78	77	93
94	93	92	90	89	88	86	85	84	82	81	80	78	94
95	94	93	91	90	89	87	86	85	83	82	81	79	95
96	95	94	92	91	90	88	87	86	84	83	82	80	96
97	96	95	93	92	91	90	88	87	86	84	83	81	97
98	97	96	94	93	92	91	89	88	87	85	84	83	98
99	98	97	95	94	93	92	90	89	88	86	85	84	99
100	99	98	96	95	94	93	91	90	89	87	86	85	100
101	100	99	97	96	95	94	92	91	90	88	87	86	101
102	101	100	98	97	96	95	93	92	91	90	88	87	102
103	102	101	99	98	97	96	94	93	92	91	89	88	103
104	103	102	100	99	98	97	96	94	93	92	90	89	104
105	104	103	101	100	99	98	97	95	94	93	91	90	105
106	105	104	102	101	100	99	98	96	95	94	93	91	106
107	106	105	103	102	101	100	99	97	96	95	94	92	107
108	107	106	104	103	102	101	100	98	97	96	95	93	108
109	108	107	105	104	103	102	101	99	98	97	96	94	109
110	109	108	107	105	104	103	102	101	99	98	97	96	110
111	110	109	108	106	105	104	103	102	100	99	98	97	111
112	111	110	109	107	106	105	104	103	101	100	99	98	112
113	112	111	110	108	107	106	105	104	102	101	100	99	113
114	113	112	111	109	108	107	106	105	104	102	101	100	114
115	114	113	112	110	109	108	107	106	105	103	102	101	115
116	115	114	113	111	110	109	108	107	106	104	103	102	116
117	116	115	114	112	111	110	109	108	107	105	104	103	117
118	117	116	115	113	112	111	110	109	108	106	105	104	118
119	118	117	116	114	113	112	111	110	109	107	106	105	119
120	119	118	117	115	114	113	112	111	110	108	107	106	120
121	120	119	118	117	115	114	113	112	111	110	108	107	121
122	121	120	119	118	116	115	114	113	112	111	109	108	122
123	122	121	120	119	117	116	115	114	113	112	110	109	123
124	123	122	121	120	118	117	116	115	114	113	111	110	124
125	124	123	122	121	119	118	117	116	115	114	112	111	125
126	125	124	123	122	120	119	118	117	116	115	114	112	126
127	126	125	124	123	121	120	119	118	117	116	115	113	127
128	127	126	125	124	122	121	120	119	118	117	116	114	128
129	128	127	126	125	123	122	121	120	119	118	117	115	129
130	129	128	127	126	124	123	122	121	120	119	118	117	130
131	130	129	128	127	125	124	123	122	121	120	119	118	131
132	131	130	129	128	126	125	124	123	122	121	120	119	132
133	132	131	130	129	128	126	125	124	123	122	121	120	133
134	133	132	131	130	129	127	126	125	124	123	122	121	134
135	134	133	132	131	130	128	127	126	125	124	123	122	135
136	135	134	133	132	131	129	128	127	126	125	124	123	136
137	136	135	134	133	132	130	129	128	127	126	125	124	137
138	137	136	135	134	133	131	130	129	128	127	126	125	138
139	138	137	136	135	134	132	131	130	129	128	127	126	139
140	139	138	137	136	135	133	132	131	130	129	128	127	140
t .	1°.0	2°.0	3°.0	4°.0	5°.0	6°.0	7°.0	8°.0	9°.0	10°.0	11°.0	12°.0	t .

TABLE I.—Temperature of the dew point, in degrees Fahrenheit.

t (Dry ther.)	Difference between the dry and wet thermometers ($t-t'$)													t (Dry ther.)
	12°.0	13°.0	14°.0	15°.0	16°.0	17°.0	18°.0	19°.0	20°.0	21°.0	22°.0	23°.0	24°.0	
80	62	60	58	56	54	52	50	47	45	42	39	36	32	80
81	63	61	59	57	55	53	51	49	47	44	41	38	35	81
82	64	62	61	59	57	55	53	50	48	45	43	40	37	82
83	65	64	62	60	58	56	54	52	50	47	44	42	39	83
84	67	65	63	61	59	57	55	53	51	49	46	43	41	84
85	68	66	64	62	61	59	57	55	53	50	48	45	42	85
86	69	67	66	64	62	60	58	56	54	52	49	47	44	86
87	70	68	67	65	63	61	59	57	55	53	51	48	46	87
88	71	70	68	66	64	63	61	59	57	55	53	50	48	88
89	72	71	69	67	66	64	62	60	58	56	54	52	49	89
90	74	72	70	69	67	65	63	62	60	58	56	53	51	90
91	75	73	72	70	68	67	65	63	61	59	57	55	53	91
92	76	74	73	71	69	68	66	64	62	60	58	56	54	92
93	77	75	74	72	71	69	67	66	64	62	60	58	56	93
94	78	77	75	73	72	70	69	67	65	63	61	59	57	94
95	79	78	76	75	73	71	70	68	66	64	63	61	59	95
96	80	79	77	76	74	73	71	69	68	66	64	62	60	96
97	81	80	78	77	75	74	72	71	69	67	65	63	61	97
98	83	81	80	78	77	75	73	72	70	68	67	65	63	98
99	84	82	81	79	78	76	75	73	71	70	68	66	64	99
100	85	83	82	80	79	77	76	74	73	71	69	67	66	100
101	86	84	83	82	80	79	77	75	74	72	71	69	67	101
102	87	85	84	83	81	80	78	77	75	73	72	70	68	102
103	88	87	85	84	82	81	79	78	76	75	73	71	70	103
104	89	88	86	85	83	82	81	79	78	76	74	73	71	104
105	90	89	87	86	85	83	82	80	79	77	76	74	72	105
106	91	90	89	87	86	84	83	81	80	78	77	75	74	106
107	92	91	90	88	87	85	84	83	81	80	78	76	75	107
108	93	92	91	89	88	87	85	84	82	81	79	78	76	108
109	94	93	92	90	89	88	86	85	83	82	80	79	77	109
110	96	94	93	92	90	89	87	86	85	83	82	80	79	110
111	97	95	94	93	91	90	89	87	86	84	83	81	80	111
112	98	96	95	94	92	91	90	88	87	85	84	83	81	112
113	99	97	96	95	93	92	91	89	88	87	85	84	82	113
114	100	99	97	96	95	93	92	91	89	88	86	85	83	114
115	101	100	98	97	96	94	93	92	90	89	88	86	85	115
116	102	101	99	98	97	95	94	93	91	90	89	87	86	116
117	103	102	100	99	98	96	95	94	93	91	90	88	87	117
118	104	103	101	100	99	97	96	95	94	92	91	90	88	118
119	105	104	103	101	100	99	97	96	95	93	92	91	89	119
120	106	105	104	102	101	100	99	97	96	95	93	92	90	120
121	107	106	105	103	102	101	100	98	97	96	94	93	92	121
122	108	107	106	105	103	102	101	99	98	97	96	94	93	122
123	109	108	107	106	104	103	102	101	99	98	97	95	94	123
124	110	109	108	107	105	104	103	102	100	99	98	96	95	124
125	111	110	109	108	106	105	104	103	101	100	99	98	96	125
126	112	111	110	109	108	106	105	104	103	101	100	99	97	126
127	113	112	111	110	109	107	106	105	104	102	101	100	98	127
128	114	113	112	111	110	108	107	106	105	103	102	101	100	128
129	115	114	113	112	111	110	108	107	106	105	103	102	101	129
130	117	115	114	113	112	111	109	108	107	106	104	103	102	130
131	118	116	115	114	113	112	110	109	108	107	106	104	103	131
132	119	117	116	115	114	113	112	110	109	108	107	105	104	132
133	120	118	117	116	115	114	113	111	110	109	108	106	105	133
134	121	120	118	117	116	115	114	112	111	110	109	108	106	134
135	122	121	119	118	117	116	115	113	112	111	110	109	107	135
136	123	122	120	119	118	117	116	115	113	112	111	110	108	136
137	124	123	121	120	119	118	117	116	114	113	112	111	110	137
138	125	124	122	121	120	119	118	117	115	114	113	112	111	138
139	126	125	124	122	121	120	119	118	117	115	114	113	112	139
140	127	126	125	123	122	121	120	119	118	116	115	114	113	140
t	12°.0	13°.0	14°.0	15°.0	16°.0	17°.0	18°.0	19°.0	20°.0	21°.0	22°.0	23°.0	24°.0	t

TABLE I.—Temperature of the dew point, in degrees Fahrenheit.

t (Dry ther.)	Difference between the dry and wet thermometers ($t-t'$)													t (Dry ther.)
	24°.0	25°.0	26°.0	27°.0	28°.0	29°.0	30°.0	31°.0	32°.0	33°.0	34°.0	35°.0	36°.0	
80	32	29	25	21	15	8	-3	-27						80
81	35	31	28	24	18	12	+3	-11						81
82	37	33	30	26	22	16	9	-2	-24					82
83	39	35	32	28	24	19	13	+5	-9					83
84	41	37	34	30	27	22	17	10	0	-20				84
85	42	39	36	32	29	25	20	14	+6	-7	-54			85
86	44	41	38	35	31	28	23	18	11	+1	-17			86
87	46	43	40	37	33	30	26	21	15	7	-5	-38		87
88	48	45	42	39	35	32	28	24	19	12	+3	-13		88
89	49	47	44	41	38	34	31	27	22	16	9	-2	-28	89
90	51	48	46	43	40	36	32	29	25	20	13	+4	-10	90
91	53	50	47	45	42	38	35	32	28	23	18	10	0	91
92	54	52	49	46	44	41	37	34	30	26	21	15	+7	92
93	56	53	51	48	46	43	39	36	32	29	24	19	12	93
94	57	55	53	50	47	45	42	38	35	31	27	22	16	94
95	59	56	54	52	49	46	44	40	37	33	30	25	20	95
96	60	58	56	53	51	48	46	43	39	36	32	28	24	96
97	61	59	57	55	53	50	47	45	41	38	34	31	26	97
98	63	61	59	57	54	52	49	47	44	40	37	33	29	98
99	64	62	60	58	56	54	51	48	46	43	39	35	32	99
100	66	64	62	60	57	55	53	50	48	45	41	38	34	100
101	67	65	63	61	59	57	54	52	49	47	44	40	37	101
102	68	66	65	63	61	58	56	54	51	49	46	43	39	102
103	70	68	66	64	62	60	58	55	53	50	48	45	41	103
104	71	69	67	65	63	61	59	57	55	52	50	47	44	104
105	72	70	69	67	65	63	61	59	56	54	52	49	46	105
106	74	72	70	68	66	64	62	60	58	56	53	51	48	106
107	75	73	71	70	68	66	64	62	60	57	55	52	50	107
108	76	74	73	71	69	67	65	63	61	59	57	54	52	108
109	77	76	74	72	71	69	67	65	63	61	58	56	54	109
110	79	77	75	74	72	70	68	66	64	62	60	58	55	110
111	80	78	77	75	73	71	70	68	66	64	62	59	57	111
112	81	79	78	76	74	73	71	69	67	65	63	61	59	112
113	82	81	79	77	76	74	72	71	69	67	65	63	60	113
114	83	82	80	79	77	75	74	72	70	68	66	64	62	114
115	85	83	82	80	78	77	75	73	72	70	68	66	64	115
116	86	84	83	81	80	78	76	75	73	71	69	67	65	116
117	87	85	84	82	81	79	78	76	74	72	71	69	67	117
118	88	87	85	84	82	81	79	77	76	74	72	70	68	118
119	89	88	86	85	83	82	80	79	77	75	74	72	70	119
120	90	89	88	86	85	83	82	80	78	77	75	73	71	120
121	92	90	89	87	86	84	83	81	80	78	76	74	73	121
122	93	91	90	89	87	86	84	83	81	79	78	76	74	122
123	94	93	91	90	88	87	85	84	82	81	79	77	75	123
124	95	94	92	91	89	88	87	85	83	82	80	79	77	124
125	96	95	93	92	91	89	88	86	85	83	82	80	78	125
126	97	96	95	93	92	90	89	87	86	84	83	81	80	126
127	98	97	96	94	93	92	90	89	87	86	84	83	81	127
128	100	98	97	96	94	93	91	90	88	87	85	84	82	128
129	101	99	98	97	95	94	93	91	90	88	87	85	84	129
130	102	101	99	98	97	95	94	92	91	89	88	86	85	130
131	103	102	100	99	98	96	95	94	92	91	89	88	86	131
132	104	103	101	100	99	97	96	95	93	92	90	89	87	132
133	105	104	103	101	100	99	97	96	94	93	92	90	89	133
134	106	105	104	102	101	100	98	97	96	94	93	91	90	134
135	107	106	105	104	102	101	100	98	97	95	94	93	91	135
136	108	107	106	105	103	102	101	99	98	97	95	94	92	136
137	110	108	107	106	104	103	102	101	99	98	96	95	94	137
138	111	109	108	107	106	104	103	102	100	99	98	96	95	138
139	112	110	109	108	107	105	104	103	101	100	99	97	96	139
140	113	112	110	109	108	107	105	104	103	101	100	99	97	140
t	24°.0	25°.0	26°.0	27°.0	28°.0	29°.0	30°.0	31°.0	32°.0	33°.0	34°.0	35°.0	36°.0	t

TABLE I.—Temperature of the dew point, in degrees Fahrenheit.

t (Dry ther.)	Difference between the dry and wet thermometers, ($t - t'$).														t (Dry ther.)
	36°.0	37°.0	38°.0	39°.0	40°.0	41°.0	42°.0	43°.0	44°.0	45°	46°.0	47°.0	48°.0		
89	-28														89
90	-10														90
91	0	-22													91
92	+ 7	- 7	-16												92
93	12	+ 2	- 4												93
94	16	8	+ 4	-37											94
95	20	13	10	-12											95
96	24	15	15	-1	-25										96
97	26	21	19	+ 7	- 8										97
98	29	25	23	12	+ 2	-18									98
99	32	28	26	17	9	- 4	-42								99
100	34	30	29	21	14	+ 5	-12								100
101	37	32	32	24	18	11	0	-25							101
102	39	35	34	27	22	16	+ 7	- 7							102
103	41	38	34	30	26	20	13	+ 3	-16						103
104	44	40	37	32	29	24	18	10	- 2	-38					104
105	46	43	39	35	31	27	22	15	+ 6	-10					105
106	48	45	42	38	34	30	25	20	12	+ 1	-22				106
107	50	47	44	40	37	32	28	24	17	9	- 5				107
108	52	49	46	43	39	35	31	27	21	14	+ 5	-13			108
109	54	51	48	45	42	38	34	30	25	19	12	0	-28		109
110	55	53	50	47	44	41	37	33	28	23	17	+ 8	- 7		110
111	57	54	52	49	46	43	39	35	31	27	21	14	+ 4		111
112	59	56	54	51	48	45	42	38	34	30	25	19	11		112
113	60	58	56	53	50	47	44	41	37	32	28	23	16		113
114	62	60	58	55	52	50	47	43	40	35	31	27	21		114
115	64	62	59	57	54	52	49	46	42	38	34	30	25		115
116	65	63	61	59	56	54	51	48	45	41	37	33	28		116
117	67	65	63	60	58	56	53	50	47	44	40	36	32		117
118	68	66	64	62	60	57	55	52	49	46	43	39	31		118
119	70	68	66	64	61	59	57	54	51	48	45	42	37		119
120	71	69	67	65	63	61	59	56	53	50	47	44	40		120
121	73	71	69	67	65	63	60	58	55	52	50	47	43		121
122	74	72	70	68	66	64	62	60	57	54	52	49	46		122
123	75	74	72	70	68	66	64	61	59	56	54	51	48		123
124	77	75	73	71	69	67	65	63	61	58	56	53	50		124
125	78	76	75	73	71	69	67	65	63	60	58	55	52		125
126	80	78	76	74	73	71	69	67	64	62	60	57	54		126
127	81	79	78	76	74	72	70	68	66	64	62	59	56		127
128	82	81	79	77	75	74	72	70	68	65	63	61	58		128
129	84	82	80	79	77	75	73	71	69	67	65	63	60		129
130	85	83	82	80	78	76	75	73	71	69	67	64	62		130
131	86	85	83	81	80	78	76	74	72	70	68	66	64		131
132	87	86	84	83	81	79	78	76	74	72	70	68	66		132
133	89	87	86	84	82	81	79	77	75	73	71	69	67		133
134	90	88	87	85	84	82	80	79	77	75	73	71	69		134
135	91	90	88	87	85	83	82	80	78	76	75	73	71		135
136	92	91	89	88	86	85	83	81	80	78	76	74	72		136
137	94	92	91	89	88	86	84	83	81	79	78	76	74		137
138	95	93	92	90	89	87	86	84	82	81	79	77	75		138
139	96	95	93	92	90	89	87	85	84	82	80	79	77		139
140	97	96	94	93	91	90	88	87	85	83	82	80	78		140
t .	36°.0	37°.0	38°.0	39°.0	40°.0	41°.0	42°.0	43°.0	44°.0	45°.0	46°.0	47°.0	48°.0	t .	

TABLE II.—Relative humidity, per cent.

t (Dry ther.)	Difference between the dry and wet thermometers ($t-t'$)												t (Dry ther.)	
	0°.2	0°.4	0°.6	0°.8	1°.0	1°.2	1°.4	1°.6	1°.8	2°.0	2°.2	2°.4	2°.6	
-40	46													-40
-39	49													-39
-38	51													-38
-37	54													-37
-36	56													-36
-35	59													-35
-34	61	22												-34
-33	63	25												-33
-32	65	30												-32
-31	67	34												-31
-30	69	38												-30
-29	71	42												-29
-28	72	45	17											-28
-27	74	48	22											-27
-26	76	51	26											-26
-25	77	53	31											-25
-24	78	56	34	12										-24
-23	79	58	37	16										-23
-22	80	60	40	20										-22
-21	81	62	44	25										-21
-20	82	64	47	29	11									-20
-19	83	66	49	33	16									-19
-18	84	68	52	36	20									-18
-17	85	70	54	39	24	9								-17
-16	86	71	57	43	28	14								-16
-15	86	73	59	46	32	19								-15
-14	87	74	61	48	36	23	10							-14
-13	88	76	63	51	39	27	15							-13
-12	88	77	65	53	42	30	19	7						-12
-11	89	78	67	56	45	34	23	12						-11
-10	90	79	68	58	48	37	26	16	5					-10
-9	90	80	70	60	50	40	30	20	10					-9
-8	90	81	71	62	52	43	33	24	14	5				-8
-7	91	82	73	63	54	45	36	27	18	9				-7
-6	91	83	74	65	56	48	39	31	22	13	5			-6
-5	92	83	75	67	58	50	42	34	25	17	9			-5
-4	92	84	76	68	60	52	45	37	29	21	13	5		-4
-3	92	85	77	70	62	55	47	40	32	25	17	10		-3
-2	93	86	78	71	64	57	50	42	35	28	21	14	7	-2
-1	93	86	79	72	66	59	52	45	38	31	25	18	11	-1
0	93	87	80	74	67	61	54	48	41	35	28	22	15	0
+1	94	87	81	75	69	63	56	50	44	38	32	25	19	+1
2	94	88	82	76	70	64	58	52	46	40	35	29	23	2
3	94	88	83	77	71	66	60	54	49	43	37	32	26	3
4	94	89	83	78	73	67	62	56	51	45	40	34	29	4
5	95	89	84	79	74	68	63	58	53	48	42	37	32	5
6	95	90	85	80	75	70	65	60	54	50	44	39	34	6
7	95	90	85	80	76	71	66	61	56	51	47	42	37	7
8	95	91	86	81	76	72	67	62	58	53	49	44	39	8
9	96	91	86	82	77	73	68	64	59	55	51	46	42	9
10	96	91	87	83	78	74	69	65	61	57	52	48	44	10
11	96	92	87	83	79	75	71	66	62	58	54	50	46	11
12	96	92	88	84	80	76	72	68	64	60	56	52	48	12
13	96	92	88	84	81	77	73	69	65	61	58	54	50	13
14	96	93	89	85	81	78	74	70	67	63	59	56	52	14
15	96	93	89	86	82	79	75	71	68	64	61	57	54	15
16	97	93	90	86	83	79	76	73	69	66	62	59	56	16
17	97	93	90	87	83	80	77	74	70	67	64	60	57	17
18	97	94	90	87	84	81	78	74	71	68	65	62	59	18
19	97	94	91	88	84	81	78	75	72	69	66	63	60	19
20	97	94	91	88	85	82	79	76	73	70	67	64	61	20
t	0°.2	0°.4	0°.6	0°.8	1°.0	1°.2	1°.4	1°.6	1°.8	2°.0	2°.2	2°.4	2°.6	t

TABLE II.—*Relative humidity, per cent.*

t (Dry ther.)		Difference between the dry and wet thermometers ($t-t'$).										t (Dry ther.)	
		2°.6	2°.8	3°.0	3°.2	3°.4	3°.6	3°.8	4°.0	4°.2	4°.4		
— 2	7											— 2	
— 1	11	4										— 1	
0	15	9										0	
+ 1	19	13	7									+ 1	
+ 2	23	17	11	5								+ 2	
+ 3	26	20	15	9	4							+ 3	
+ 4	29	24	18	13	8	2						+ 4	
5	32	27	22	16	11	6						5	
6	34	29	25	20	15	10	5					6	
7	37	32	28	23	18	13	9	4				7	
8	39	35	30	26	21	17	12	8	3			8	
9	42	37	33	28	24	20	15	11	7	2		9	
10	44	40	35	31	27	23	19	14	10	6		10	
11	46	42	38	34	30	26	22	18	14	10		11	
12	48	44	40	36	32	28	25	21	17	13		12	
13	50	46	42	39	35	31	27	24	20	16		13	
14	52	48	45	41	37	34	30	27	23	19		14	
15	54	50	47	43	40	36	33	29	26	23		15	
16	56	52	49	46	42	39	36	32	29	25		16	
17	57	54	51	48	44	41	38	35	31	28		17	
18	59	56	53	49	46	43	40	37	34	31		18	
19	60	57	54	51	48	45	42	39	36	33		19	
20	61	58	56	53	50	47	44	41	38	35		20	
$t.$	2°.6	2°.8	3°.0	3°.2	3°.4	3°.6	3°.8	4°.0	4°.2	4°.4	$t.$		
$t.$	4°.6	4°.8	5°.0	5°.2	5°.4	5°.6	5°.8	6°.0	6°.2	6°.4	$t.$		
8												8	
9												9	
10	2											10	
11	6	2										11	
12	9	5	2									12	
13	13	9	5	2								13	
14	16	12	9	5	2							14	
15	19	16	12	9	5	2						15	
16	22	19	16	12	9	6	2					16	
17	25	22	19	16	12	9	6	3				17	
18	28	25	22	19	16	13	9	6	3			18	
19	30	27	24	21	19	16	13	10	7	4		19	
20	33	30	27	24	21	19	16	13	10	7		20	
$t.$	4°.6	4°.8	5°.0	5°.2	5°.4	5°.6	5°.8	6°.0	6°.2	6°.4	$t.$		

TABLE II.—*Relative humidity, per cent.*

t (Dry ther.)	Difference between the dry and wet thermometers ($t-t'$).												t (Dry ther.)
	0°.5	1°.0	1°.5	2°.0	2°.5	3°.0	3°.5	4°.0	4°.5	5°.0	5°.5	6°.0	
20	92	85	77	70	63	56	48	41	34	27	20	13	20
21	93	85	78	71	64	57	50	43	36	29	23	16	21
22	93	86	79	72	65	58	51	45	38	32	25	19	22
23	93	86	80	73	66	60	53	46	40	34	27	21	23
24	93	87	80	74	67	61	54	48	42	36	30	24	24
25	94	87	81	74	68	62	56	50	44	38	32	26	25
26	94	88	81	75	69	63	57	51	45	40	34	28	26
27	94	88	82	76	70	64	59	53	47	42	36	30	27
28	94	88	82	77	71	65	60	54	49	43	38	33	28
29	94	89	83	77	72	66	61	56	50	45	40	35	29
30	94	89	84	78	73	67	62	57	52	47	41	36	30
31	95	89	84	79	74	68	63	58	53	48	43	38	31
32	95	90	84	79	74	69	64	59	54	50	45	40	32
33	95	90	85	80	75	70	65	60	56	51	47	42	33
34	95	91	86	81	75	72	67	62	57	53	48	44	34
35	95	91	86	82	76	73	69	65	59	54	50	45	35
36	96	91	86	82	77	73	70	66	61	56	51	47	36
37	96	91	87	82	78	74	70	66	62	57	52	48	37
38	96	92	87	83	79	75	71	67	63	58	54	50	38
39	96	92	88	83	79	75	72	68	63	59	55	52	39
40	96	92	88	84	80	76	72	68	64	60	56	53	40
41	96	92	88	84	80	76	72	69	65	61	57	54	41
42	96	92	88	84	81	77	73	69	65	62	58	55	42
43	96	92	88	85	81	77	74	70	66	63	59	56	43
44	96	92	88	85	81	78	74	70	67	63	60	57	44
45	96	92	89	85	82	78	75	71	67	64	61	58	45
46	96	93	89	85	82	79	75	72	68	65	61	58	46
47	96	93	89	86	83	79	76	72	69	66	62	59	47
48	96	93	89	86	83	79	76	73	69	66	63	60	48
49	97	93	90	86	83	80	76	73	70	67	63	69	49
50	97	93	90	87	83	80	77	74	70	67	64	61	50
51	97	93	90	87	84	81	77	74	71	68	65	62	51
52	97	94	90	87	84	81	78	75	72	69	66	63	52
53	97	94	91	87	84	81	78	75	72	69	66	63	53
54	97	94	91	88	85	82	79	76	73	70	67	64	54
55	97	94	91	88	85	82	79	76	73	70	68	65	55
56	97	94	91	88	85	82	80	77	74	71	68	65	56
57	97	94	91	88	86	83	80	77	74	71	69	66	57
58	97	94	91	89	86	83	80	78	75	72	69	67	58
59	97	94	92	89	86	83	81	78	75	72	70	67	59
60	97	94	92	89	86	84	81	78	75	73	70	68	60
61	97	94	92	89	87	84	81	78	76	73	71	68	61
62	97	95	92	89	87	84	81	79	76	74	71	69	62
63	97	95	92	89	87	84	82	79	77	74	72	69	63
64	97	95	92	90	87	85	82	79	77	74	72	70	64
65	97	95	92	90	87	85	82	80	77	75	72	70	65
66	97	95	92	90	87	85	82	80	78	75	73	71	66
67	98	95	93	90	88	85	83	80	78	76	73	71	67
68	98	95	93	90	88	85	83	81	78	76	74	71	68
69	98	95	93	90	88	86	83	81	78	76	74	72	69
70	98	95	93	90	88	86	83	81	79	77	74	72	70
71	98	95	93	91	88	86	84	81	79	77	75	72	71
72	98	95	93	91	88	86	84	82	79	77	75	73	72
73	98	95	93	91	88	86	84	82	80	78	75	73	73
74	98	95	93	91	88	86	84	82	80	78	76	74	74
75	98	95	93	91	89	87	84	82	80	78	76	74	75
76	98	95	93	91	89	87	85	82	80	78	76	74	76
77	98	95	93	91	89	87	85	83	80	78	76	74	77
78	98	96	93	91	89	87	85	83	81	79	77	75	78
79	98	96	94	91	89	87	85	83	81	79	77	75	79
80	98	96	94	92	89	87	85	83	81	79	77	75	80

TABLE II.—Relative humidity, per cent.

t (Dry ther.)	Difference between the dry and wet thermometers ($t-t'$)													t (Dry ther.)
	6°.0	6°.5	7°.0	7°.5	8°.0	8°.5	9°.0	9°.5	10°.0	10°.5	11°.0	11°.5	12°.0	
19	10													19
20	13	6												20
21	16	9	2											21
22	19	12	6											22
23	21	15	9	2										23
24	24	17	11	6										24
25	26	20	14	8	3									25
26	28	23	17	11	6									26
27	30	25	19	14	9	3								27
28	33	27	22	17	11	6	1							28
29	35	29	24	19	14	9	4							29
30	36	31	26	22	17	12	7	2						30
31	38	33	29	24	19	14	10	5						31
32	40	35	31	26	21	17	12	8						32
33	42	37	33	28	24	19	15	10	6					33
34	44	39	35	30	26	21	17	13	9	4				34
35	45	41	37	32	28	24	19	15	12	7	3			35
36	47	43	38	34	30	26	22	18	14	10	6	2		36
37	48	44	40	36	32	28	24	20	16	12	8	5	1	37
38	50	46	42	38	34	30	26	22	18	15	11	7	3	38
39	52	48	44	40	36	32	28	24	20	17	13	9	6	39
40	53	49	45	41	38	34	30	26	22	19	16	12	8	40
41	54	50	46	43	39	36	32	29	24	21	18	14	10	41
42	55	51	48	44	40	37	34	30	27	23	20	16	13	42
43	56	52	49	46	42	38	35	32	29	25	22	19	15	43
44	57	53	50	47	43	40	37	33	30	27	24	21	17	44
45	58	54	51	48	44	41	38	35	32	29	25	22	19	45
46	58	55	52	49	46	42	39	36	33	30	27	23	21	46
47	59	56	53	50	47	44	40	38	34	31	28	25	22	47
48	60	56	53	51	48	45	42	39	36	33	30	27	24	48
49	60	57	54	52	49	46	43	40	37	34	31	29	26	49
50	61	58	55	52	50	47	44	41	38	36	33	30	27	50
51	62	59	56	53	50	48	45	42	39	37	34	31	28	51
52	63	60	57	54	51	48	46	43	40	38	35	33	30	52
53	63	61	58	55	52	49	47	44	42	39	36	34	31	53
54	64	61	59	56	53	50	48	45	43	40	38	35	32	54
55	65	62	59	57	54	51	49	46	43	41	39	36	34	55
56	65	63	60	57	55	52	50	47	44	42	40	37	35	56
57	66	64	61	58	55	53	50	48	45	43	40	38	36	57
58	67	64	61	59	56	53	51	49	46	44	42	39	37	58
59	67	65	62	60	57	54	52	49	47	45	43	40	38	59
60	68	65	63	60	58	55	53	50	48	46	44	41	39	60
61	68	66	63	61	58	56	54	51	49	47	44	42	40	61
62	69	66	64	61	59	57	54	52	50	47	45	43	41	62
63	69	67	64	62	60	57	55	53	51	48	46	44	42	63
64	70	67	65	62	60	58	56	53	51	49	47	45	43	64
65	70	68	65	63	61	59	56	54	52	50	48	46	44	65
66	71	68	66	63	61	59	57	55	53	51	49	47	45	66
67	71	69	66	64	62	60	58	55	53	51	49	47	45	67
68	71	69	67	65	63	60	58	56	54	52	50	48	46	68
69	72	70	67	65	63	61	59	57	55	53	51	49	47	69
70	72	70	68	66	64	62	60	57	55	53	52	50	48	70
71	72	70	68	66	64	62	60	58	56	54	52	50	48	71
72	73	71	69	67	65	63	61	59	57	55	53	51	49	72
73	73	71	69	67	65	63	61	59	57	55	53	52	50	73
74	74	72	70	68	66	64	62	60	58	56	54	52	50	74
75	74	72	70	68	66	64	62	60	58	56	55	53	51	75
76	74	72	70	68	66	64	63	61	59	57	55	53	52	76
77	74	73	71	69	67	65	63	61	59	57	56	54	52	77
78	75	73	71	69	67	65	63	62	60	58	56	54	53	78
79	75	73	71	70	68	66	64	62	60	58	57	55	53	79
80	75	73	72	70	68	66	64	63	61	59	57	55	54	80

TABLE II.—*Relative humidity, per cent.*

t (Dry ther.)	Difference between the dry and wet thermometers ($t-t'$)														t (Dry ther.)
	12°.0	12°.5	13°.0	13°.5	14°.0	14°.5	15°.0	15°.5	16°.0	16°.5	17°.0	17°.5	18°.0		
40	8	5	1												40
41	10	7	4	3											41
42	13	10	6	3	2										42
43	15	12	9	5		1									43
44	17	14	11	8	5										44
45	19	16	13	10	7	4	1								45
46	21	18	15	12	9	6	3								46
47	22	20	16	14	11	8	5	3							47
48	24	21	19	16	13	10	7	5	2						48
49	26	23	20	17	15	12	9	7	4	1					49
50	27	24	22	19	16	14	11	9	6	4	1				50
51	28	26	23	21	18	16	13	10	8	5	3	0			51
52	30	27	24	22	20	17	15	12	10	7	5	2			52
53	31	29	26	24	21	19	16	14	12	9	7	4	2		53
54	32	30	28	25	23	20	18	15	13	11	8	6	4		54
55	34	31	29	26	24	22	19	17	15	12	10	8	6		55
56	35	33	30	28	25	23	21	19	16	14	12	10	8		56
57	36	34	32	29	27	24	22	20	18	16	13	11	9		57
58	37	35	33	30	28	26	24	21	19	17	15	13	11		58
59	38	36	34	31	29	27	25	23	21	18	16	14	12		59
60	39	37	34	32	30	28	26	24	22	20	18	16	14		60
61	40	38	35	33	32	29	27	25	23	21	19	17	15		61
62	41	39	37	34	32	30	28	26	24	22	20	18	16		62
63	42	40	38	35	33	31	29	28	26	24	22	20	18		63
64	43	41	38	36	34	32	30	29	27	25	23	21	19		64
65	44	42	39	37	35	33	31	29	28	26	24	22	20		65
66	45	42	40	38	36	34	32	30	29	27	25	23	22		66
67	45	43	41	39	37	35	33	32	30	28	26	25	23		67
68	46	44	42	40	38	36	34	33	31	29	27	26	24		68
69	47	45	43	41	39	37	35	33	32	30	28	26	25		69
70	48	46	44	42	40	38	36	34	33	31	29	27	26		70
71	48	46	45	43	41	39	37	35	34	32	30	28	27		71
72	49	47	45	43	42	40	38	36	35	33	31	30	28		72
73	50	48	46	44	42	41	39	37	35	34	32	30	29		73
74	50	48	47	45	43	41	40	38	36	35	33	31	30		74
75	51	49	47	46	44	42	40	39	37	35	34	32	31		75
76	52	50	48	46	45	43	41	39	38	36	35	33	31		76
77	52	50	49	47	45	44	42	40	39	37	35	34	32		77
78	53	51	49	48	46	44	43	41	39	38	36	35	33		78
79	53	52	50	48	47	45	43	42	40	39	37	36	34		79
80	54	52	51	49	47	45	44	42	41	39	38	36	35		80
t	12°.0	12°.5	13°.0	13°.5	14°.0	14°.5	15°.0	15°.5	16°.0	16°.5	17°.0	17°.5	18°.0	t	

TABLE II.—*Relative humidity, per cent.*

t (Dry ther.)	Difference between the dry and wet thermometers ($t-t'$)													t' (Dry ther.)
	18°.0	19°.0	20°.0	21°.0	22°.0	23°.0	24°.0	25°.0	26°.0	27°.0	28°.0	29°.0	30°.0	
55	6	1												55
56	8	3												56
57	9	5												57
58	11	7	2											58
59	12	8	4											59
60	14	10	6	2										60
61	15	11	7	3										61
62	16	13	9	5	1									62
63	18	14	10	7	3									63
64	19	15	12	8	5	1								64
65	20	17	13	10	6	3								65
66	22	18	14	11	8	4	1							66
67	23	19	16	12	9	6	2							67
68	24	20	17	14	10	7	4	1						68
69	25	22	18	15	12	8	5	2						69
70	26	23	19	16	13	10	7	4	1					70
71	27	24	20	17	14	11	8	5	2					71
72	28	24	22	18	15	12	9	6	3	1				72
73	29	25	22	19	16	13	10	8	5	2				73
74	30	26	23	20	18	15	12	9	6	3	1			74
75	31	27	24	21	19	16	13	10	7	5	2			75
76	31	28	25	22	20	17	14	11	8	6	3	1		76
77	32	29	26	23	20	18	15	12	10	7	4	2		77
78	33	30	27	24	21	19	16	13	11	8	6	3	1	78
79	34	31	28	25	22	19	17	14	12	9	7	4	2	79
80	35	32	29	26	23	20	18	15	13	10	8	6	3	80
t	18°.0	19°.0	20°.0	21°.0	22°.0	23°.0	24°.0	25°.0	26°.0	27°.0	28°.0	29°.0	30°.0	t

TABLE II.—*Relative humidity, per cent.*

t (Dry ther.)	Difference between the dry and wet thermometers ($t-t'$).												t (Dry ther.)
	1°.0	2°.0	3°.0	4°.0	5°.0	6°.0	7°.0	8°.0	9°.0	10°.0	11°.0	12°.0	
80	96	92	87	83	79	75	72	68	64	61	57	54	80
81	96	92	88	84	80	76	72	68	65	61	58	54	81
82	96	92	88	84	80	76	72	69	65	62	58	55	82
83	96	92	88	84	80	76	73	69	66	62	59	55	83
84	96	92	88	84	80	77	73	69	66	63	59	56	84
85	96	92	88	84	80	77	73	70	66	63	60	56	85
86	96	92	88	84	81	77	73	70	67	63	60	57	86
87	96	92	88	84	81	77	74	70	67	64	60	57	87
88	96	92	88	85	81	77	74	71	67	64	61	58	88
89	96	92	88	85	81	78	74	71	68	64	61	58	89
90	96	92	88	85	81	78	75	71	68	65	62	59	90
91	96	92	89	85	82	78	75	71	68	65	62	59	91
92	96	92	89	85	82	78	75	72	69	65	62	59	92
93	96	93	89	85	82	78	75	72	69	66	63	60	93
94	96	93	89	86	82	79	75	72	69	66	63	60	94
95	96	93	89	86	82	79	76	72	69	66	63	60	95
96	96	93	89	86	82	79	76	73	70	67	64	61	96
97	96	93	89	86	82	79	76	73	70	67	64	61	97
98	96	93	89	86	83	79	76	73	70	67	64	61	98
99	96	93	89	86	83	80	76	73	70	68	65	62	99
100	97	93	90	86	83	80	77	74	71	68	65	62	100
101	97	93	90	86	83	80	77	74	71	68	65	62	101
102	97	93	90	86	83	80	77	74	71	68	65	63	102
103	97	93	90	87	83	80	77	74	71	69	66	63	103
104	97	93	90	87	83	80	77	74	72	69	66	63	104
105	97	93	90	87	84	81	78	75	72	69	66	64	105
106	97	93	90	87	84	81	78	75	72	69	66	64	106
107	97	93	90	87	84	81	78	75	72	69	67	64	107
108	97	93	90	87	84	81	78	75	72	70	67	64	108
109	97	93	90	87	84	81	78	75	73	70	67	65	109
110	97	94	90	87	84	81	78	76	73	70	67	65	110
111	97	94	90	87	84	81	78	76	73	70	68	65	111
112	97	94	90	87	84	82	79	76	73	71	68	65	112
113	97	94	90	87	85	82	79	76	73	71	68	66	113
114	97	94	91	88	85	82	79	76	74	71	68	66	114
115	97	94	91	88	85	82	79	76	74	71	69	66	115
116	97	94	91	88	85	82	79	76	74	71	69	66	116
117	97	94	91	88	85	82	79	77	74	71	69	66	117
118	97	94	91	88	85	82	79	77	74	72	69	67	118
119	97	94	91	88	85	82	80	77	74	72	69	67	119
120	97	94	91	88	85	83	80	77	75	72	70	67	120
121	97	94	91	88	85	83	80	77	75	72	70	67	121
122	97	94	91	88	85	83	80	77	75	72	70	67	122
123	97	94	91	88	85	83	80	78	75	73	70	68	123
124	97	94	91	88	85	83	80	78	75	73	70	68	124
125	97	94	91	88	86	83	80	78	75	73	70	68	125
126	97	94	91	88	86	83	80	78	75	73	71	68	126
127	97	94	91	89	86	83	81	78	76	73	71	68	127
128	97	94	91	89	86	83	81	78	76	73	71	68	128
129	97	94	91	89	86	83	81	78	76	73	71	69	129
130	97	94	91	89	86	83	81	78	76	74	71	69	130
131	97	94	92	89	86	84	81	79	76	74	71	69	131
132	97	94	92	89	86	84	81	79	76	74	72	69	132
133	97	94	92	89	86	84	81	79	76	74	72	69	133
134	97	94	92	89	86	84	81	79	76	74	72	70	134
135	97	94	92	89	86	84	81	79	77	74	72	70	135
136	97	94	92	89	87	84	82	79	77	74	72	70	136
137	97	94	92	89	87	84	82	79	77	74	72	70	137
138	97	95	92	89	87	84	82	79	77	74	73	70	138
139	97	95	92	89	87	84	82	79	77	75	73	70	139
140	97	95	92	89	87	84	82	79	77	75	73	71	140
t .	1°.0	2°.0	3°.0	4°.0	5°.0	6°.0	7°.0	8°.0	9°.0	10°.0	11°.0	12°.0	t .

TABLE II.—*Relative humidity, per cent.*

t (Dry ther.)	Difference between the dry and wet thermometers ($t-t'$)													t (Dry ther.)
	12°.0	13°.0	14°.0	15°.0	16°.0	17°.0	18°.0	19°.0	20°.0	21°.0	22°.0	23°.0	24°.0	
80	54	51	47	44	41	38	35	32	29	26	23	20	18	80
81	54	51	48	44	41	38	35	33	30	27	24	21	19	81
82	55	52	48	45	42	39	36	33	31	28	25	22	20	82
83	55	52	49	46	43	40	37	34	31	29	26	23	21	83
84	56	53	49	46	44	41	38	35	32	29	27	24	22	84
85	56	53	50	47	44	41	38	36	33	30	28	25	22	85
86	57	54	51	48	45	42	39	36	34	31	29	26	23	86
87	57	54	51	48	45	42	40	37	34	32	30	27	24	87
88	58	55	52	49	46	43	40	38	35	32	30	27	25	88
89	58	55	52	49	46	44	41	38	36	33	31	28	26	89
90	59	56	53	50	47	44	41	39	36	34	32	29	26	90
91	59	56	53	50	47	45	42	39	37	35	33	30	27	91
92	59	56	54	51	48	45	43	40	37	35	33	30	28	92
93	60	57	54	51	48	46	43	41	38	36	34	31	29	93
94	60	57	54	52	49	46	44	41	39	36	34	31	29	94
95	60	58	55	52	49	47	44	42	39	37	35	32	30	95
96	61	58	55	53	50	47	45	42	40	37	36	33	30	96
97	61	58	56	53	50	48	45	43	40	38	36	33	31	97
98	61	59	56	53	51	48	46	43	41	38	37	34	32	98
99	62	59	56	54	51	49	46	44	41	39	37	34	32	99
100	62	59	57	54	51	49	47	44	42	39	37	35	33	100
101	62	60	57	54	52	49	47	45	42	40	38	36	33	101
102	63	60	57	55	52	50	47	45	43	40	38	36	34	102
103	63	60	58	55	53	50	48	45	43	41	39	37	34	103
104	63	61	58	55	53	51	48	46	44	41	39	37	35	104
105	64	61	58	56	53	51	49	46	44	42	40	38	35	105
106	64	61	59	56	54	51	49	47	44	42	40	38	36	106
107	64	62	59	57	54	52	49	47	45	43	41	38	36	107
108	64	62	59	57	54	52	50	47	45	43	41	39	37	108
109	65	62	60	57	55	52	50	48	46	44	41	39	37	109
110	65	62	60	57	55	53	50	48	46	44	42	40	38	110
111	65	63	60	58	55	53	51	49	46	44	42	40	38	111
112	65	63	60	58	56	53	51	49	47	45	43	40	39	112
113	66	63	61	58	56	54	51	49	47	45	43	41	39	113
114	66	63	61	59	56	54	52	50	48	45	44	41	39	114
115	66	64	61	59	57	54	52	50	48	46	44	42	40	115
116	66	64	61	59	57	55	52	50	48	46	44	42	40	116
117	66	64	62	59	57	55	53	51	49	46	44	43	41	117
118	67	64	62	60	57	55	53	51	49	47	45	43	41	118
119	67	64	62	60	58	55	53	51	49	47	45	43	41	119
120	67	65	62	60	58	56	54	51	49	47	45	44	42	120
121	67	65	63	60	58	56	54	52	50	48	46	44	42	121
122	67	65	63	61	58	56	54	52	50	48	46	44	42	122
123	68	65	63	61	59	57	54	52	50	48	46	45	43	123
124	68	66	63	61	59	57	55	53	51	49	47	45	43	124
125	68	66	64	62	59	57	55	53	51	49	47	45	43	125
126	68	66	64	62	59	57	55	53	51	49	47	46	44	126
127	68	66	64	62	60	58	55	54	52	50	48	46	44	127
128	68	66	64	62	60	58	56	54	52	50	48	46	44	128
129	69	66	64	62	60	58	56	54	52	50	48	46	45	129
130	69	67	65	62	60	58	56	54	52	50	49	47	45	130
131	69	67	65	63	60	58	56	54	52	51	49	47	45	131
132	69	67	65	63	61	59	57	55	53	51	49	47	46	132
133	69	67	65	63	61	59	57	55	53	51	49	48	46	133
134	70	67	65	63	61	59	57	55	53	51	50	48	46	134
135	70	68	65	63	61	59	57	55	53	51	50	48	46	135
136	70	68	66	64	61	59	58	56	54	52	50	48	47	136
137	70	68	66	64	62	60	58	56	54	52	50	49	47	137
138	70	68	66	64	62	60	58	56	54	52	51	49	47	138
139	70	68	66	64	62	60	58	56	54	53	51	49	47	139
140	71	68	66	64	62	60	58	56	55	53	51	49	48	140

TABLE II.—Relative humidity, per cent.

t (Dry ther.)	Difference between the dry and wet thermometers ($t-t'$).													t (Dry ther.)
	24°.0	25°.0	26°.0	27°.0	28°.0	29°.0	30°.0	31°.0	32°.0	33°.0	34°.0	35°.0	36°.0	
80	18	15	13	10	8	6	3	1						80
81	19	16	14	11	9	7	4	2						81
82	20	17	15	12	10	8	5	3	1					82
83	21	18	16	13	11	9	6	4	2					83
84	22	19	17	14	12	10	8	5	3	1				84
85	22	20	17	15	13	11	9	6	4	2				85
86	23	21	18	16	14	12	10	7	5	3	1			86
87	24	22	19	17	15	13	11	8	6	4	2			87
88	25	22	20	18	16	14	12	9	7	5	3	1		88
89	26	23	21	19	16	14	12	10	8	6	4	2	1	89
90	26	24	22	20	17	15	13	11	9	7	5	3	2	90
91	27	25	23	20	18	16	14	12	10	8	6	4	3	91
92	28	26	23	21	19	17	15	13	11	9	7	5	3	92
93	29	26	24	22	20	18	16	14	12	10	8	6	4	93
94	29	27	25	23	21	18	16	14	13	11	9	7	5	94
95	30	28	25	23	21	19	17	15	13	11	10	8	6	95
96	30	28	26	24	22	20	18	16	14	12	10	9	7	96
97	31	29	27	25	23	21	19	17	15	13	11	10	8	97
98	32	29	27	25	23	21	19	18	16	14	12	10	9	98
99	32	30	28	26	24	22	20	18	16	15	13	11	10	99
100	33	31	29	27	25	23	21	19	17	15	14	12	10	100
101	33	31	29	27	25	23	21	20	18	16	14	13	11	101
102	34	32	30	28	26	24	22	20	19	17	15	13	12	102
103	34	32	30	28	26	25	23	21	19	17	16	14	12	103
104	35	33	31	29	27	25	23	22	20	18	16	15	13	104
105	35	33	31	30	28	26	24	22	20	19	17	15	14	105
106	36	34	32	30	28	26	25	23	21	19	18	16	14	106
107	36	34	32	31	29	27	25	23	22	20	18	17	15	107
108	37	35	33	31	29	27	26	24	22	21	19	17	16	108
109	37	35	33	32	30	28	26	25	23	21	20	18	16	109
110	38	36	34	32	30	28	27	25	23	22	20	19	17	110
111	38	36	34	33	31	29	27	26	24	22	21	19	18	111
112	39	37	35	33	31	29	28	26	24	23	21	20	18	112
113	39	37	35	33	32	30	28	27	25	23	22	20	19	113
114	39	38	36	34	32	30	29	27	25	24	22	21	19	114
115	40	38	36	34	33	31	29	28	26	24	23	21	20	115
116	40	39	37	35	33	31	30	28	26	25	23	22	20	116
117	41	39	37	35	33	32	30	29	27	25	24	22	21	117
118	41	39	37	36	34	32	31	29	27	26	24	23	21	118
119	41	40	38	36	34	33	31	29	28	26	25	23	22	119
120	42	40	38	36	35	33	31	30	28	27	25	24	22	120
121	42	40	38	37	35	33	32	30	29	27	26	24	23	121
122	42	41	39	37	35	34	32	31	29	28	26	25	23	122
123	43	41	39	37	36	34	33	31	29	28	26	25	24	123
124	43	41	40	38	36	35	33	31	30	28	27	25	24	124
125	43	42	40	38	37	35	33	32	30	29	27	26	24	125
126	44	42	40	39	37	35	34	32	31	29	28	26	25	126
127	44	42	41	39	37	36	34	32	31	30	28	27	25	127
128	44	43	41	39	38	36	34	33	31	30	29	27	26	128
129	45	43	41	40	38	36	35	33	32	30	29	28	26	129
130	45	43	42	40	38	37	35	33	32	31	29	28	27	130
131	45	44	42	40	39	37	35	34	32	31	30	28	27	131
132	46	44	42	40	39	37	36	34	33	31	30	29	27	132
133	46	44	42	41	39	38	36	35	33	32	30	29	28	133
134	46	44	43	41	39	38	36	35	33	32	31	29	28	134
135	46	45	43	41	40	38	37	35	34	32	31	30	28	135
136	47	45	43	42	40	39	37	36	34	33	31	30	29	136
137	47	45	44	42	40	39	37	36	34	33	32	30	29	137
138	47	45	44	42	41	39	38	36	35	33	32	31	29	138
139	47	46	44	42	41	39	38	37	35	34	32	31	30	139
140	48	46	44	43	41	40	38	37	35	34	33	31	30	140
$t.$	24°.0	25°.0	26°.0	27°.0	28°.0	29°.0	30°.0	31°.0	32°.0	33°.0	34°.0	35°.0	36°.0	$t.$

TABLE II.—*Relative humidity, per cent.*

		Difference between the dry and wet thermometers ($t-t'$)														
t (Dry ther.)		36°.0	37°.0	38°.0	39°.0	40°.0	41°.0	42°.0	43°.0	44°.0	45°.0	46°.0	47°.0	48°.0	t (Dry ther.)	
89	1															89
90	2															90
91	3	1	2	1												91
92	3	2	3	2												92
93	4	3	4	3												93
94	5	4	5	3	0											94
95	6	5	4	1	2	1										95
96	7	5	5	2	3	1										96
97	8	6	6	3	1											97
98	9	7	7	4	2	1										98
99	10	8	7	5	3	2	0									99
100	10	9	8	6	4	3	1									100
101	11	9	9	6	5	3	2	0								101
102	12	10	9	7	6	4	3	1								102
103	12	11	9	8	6	5	4	2	1							103
104	13	12	10	8	7	6	5	3	2							104
105	14	12	11	9	8	6	5	4	2	1						105
106	14	13	11	10	8	7	6	4	3	2	0					106
107	15	14	12	11	9	8	6	5	4	3	1					107
108	16	14	13	11	10	9	7	6	5	3	2	1				108
109	16	15	13	12	10	9	8	7	5	4	3	1				109
110	17	15	14	13	11	10	8	7	6	5	3	2	1			110
111	18	16	15	13	12	10	9	8	7	5	4	3	2			111
112	18	17	15	14	12	11	10	8	7	6	5	4	2			112
113	19	17	16	14	13	12	10	9	8	7	5	4	3			113
114	19	18	16	15	14	12	11	10	8	7	6	5	4			114
115	20	18	17	16	14	13	12	10	9	8	7	6	4			115
116	20	19	17	16	15	13	12	11	10	8	7	6	5			116
117	21	19	18	17	15	14	13	11	10	9	8	7	6			117
118	21	20	18	17	16	15	13	12	11	10	8	7	6			118
119	22	20	19	18	16	15	14	12	11	10	9	8	7			119
120	22	21	19	18	17	16	14	13	12	11	10	9	8			120
121	23	21	20	18	17	16	15	13	12	11	10	9	8			121
122	23	22	20	19	18	17	15	14	13	12	11	10	9			122
123	24	22	21	19	18	17	16	14	13	12	11	10	9			123
124	24	23	21	20	19	18	16	15	14	13	12	11	9			124
125	24	23	22	20	19	18	17	15	14	13	12	11	10			125
126	25	23	22	21	20	19	17	16	15	14	13	12	10			126
127	25	24	23	21	20	19	18	16	15	14	13	12	11			127
128	26	24	23	22	21	19	18	17	16	15	14	13	11			128
129	26	25	24	22	21	20	19	17	16	15	14	13	12			129
130	27	25	24	23	21	20	19	18	17	16	15	14	12			130
131	27	26	24	23	22	21	19	18	17	16	15	14	13			131
132	27	26	25	23	22	21	20	19	18	16	15	14	13			132
133	28	26	25	24	23	21	20	19	18	17	16	15	14			133
134	28	27	25	24	23	22	21	19	18	17	16	15	14			134
135	28	27	26	24	23	22	21	20	19	18	17	16	15			135
136	29	27	26	25	24	22	21	20	19	18	17	16	15			136
137	29	28	26	25	24	23	22	20	19	18	17	16	15			137
138	29	28	27	25	24	23	22	21	20	19	18	17	16			138
139	30	28	27	26	25	24	22	21	20	19	18	17	16			139
140	30	29	28	26	25	24	23	22	21	20	18	17	16			140
<i>t.</i>		36°.0	37°.0	38°.0	39°.0	40°.0	41°.0	42°.0	43°.0	44°.0	45°.0	46°.0	47°.0	48°.0	<i>t.</i>	

TABLE III.—*Correction to vapor pressure for reading of barometer.*

Degs.	Inches.													Degs.
	$t-t'$	30	29	28	27	26	25	24	23	22	21	20	19	18
1	.000	.000	+.001	+.001	+.001	+.002	+.002	+.003	+.003	+.003	+.004	+.004	+.004	1
2	.000	.000	.001	.002	.002	.003	.004	.005	.006	.007	.007	.008	.009	2
3	-.001	.000	.001	.002	.003	.004	.006	.007	.008	.009	.010	.011	.012	3
4	-.001	.000	.002	.003	.005	.006	.008	.009	.011	.012	.014	.015	.017	4
5	-.001	+.001	.002	.004	.006	.008	.010	.012	.014	.015	.017	.019	.021	5
6	-.001	.001	.003	.005	.008	.010	.012	.014	.016	.019	.021	.023	.025	6
7	-.001	.001	.003	.006	.009	.012	.014	.017	.019	.022	.024	.027	.030	7
8	-.001	.001	.004	.007	.010	.013	.016	.019	.022	.025	.028	.031	.034	8
9	-.001	.002	.005	.008	.012	.015	.018	.022	.025	.028	.032	.035	.038	9
10	-.002	.002	.005	.009	.013	.017	.020	.024	.027	.031	.035	.039	.043	10
11	-.002	.002	.006	.010	.014	.018	.022	.026	.031	.035	.039	.043	.047	11
12	-.003	.002	.006	.010	.015	.019	.024	.028	.032	.037	.041	.046	.050	12
13	-.003	.002	.006	.011	.016	.021	.026	.030	.035	.040	.045	.050	.055	13
14	-.004	.002	.007	.012	.017	.022	.028	.033	.038	.043	.048	.054	.059	14
15	-.004	.002	.007	.013	.019	.024	.030	.035	.041	.046	.052	.058	.063	15
16	-.004	.002	.008	.014	.020	.026	.032	.038	.044	.049	.055	.061	.067	16
17	-.004	.002	.008	.015	.021	.027	.034	.040	.046	.053	.059	.065	.072	17
18	-.004	.002	.009	.016	.022	.029	.036	.042	.049	.056	.062	.069	.076	18
19	-.005	.002	.009	.017	.024	.031	.038	.045	.052	.059	.066	.073	.080	19
20	-.005	.003	.010	.018	.026	.033	.041	.048	.055	.063	.070	.078	.085	20
21	-.005	.003	.011	.019	.027	.034	.042	.050	.057	.066	.073	.081	.089	21
22	-.005	.003	.011	.020	.028	.036	.044	.052	.061	.069	.077	.085	.093	22
23	-.005	.003	.012	.021	.029	.038	.046	.055	.063	.072	.081	.089	.098	23
24	-.005	.004	.013	.021	.030	.039	.048	.057	.066	.075	.084	.093	.102	24
25	-.006	.004	.013	.022	.032	.041	.050	.060	.069	.078	.088	.097	.106	25
26	-.006	.004	.013	.023	.033	.043	.052	.062	.072	.081	.091	.101	.111	26
27	-.006	.004	.014	.024	.034	.044	.054	.065	.075	.085	.095	.105	.115	27
28	-.006	.004	.015	.025	.036	.046	.056	.067	.077	.088	.098	.109	.119	28
29	-.007	.004	.015	.026	.037	.048	.059	.069	.080	.091	.102	.113	.124	29
30	-.007	.004	.016	.027	.038	.049	.061	.072	.083	.094	.105	.117	.128	30
31	-.007	.005	.016	.028	.039	.051	.063	.074	.086	.097	.109	.121	.132	31
32	-.007	.005	.017	.029	.041	.053	.065	.077	.089	.101	.113	.125	.137	32
33	-.007	.005	.017	.030	.042	.054	.067	.079	.092	.104	.116	.129	.141	33
34	-.008	.005	.018	.031	.043	.056	.069	.082	.094	.107	.120	.133	.145	34
35	-.008	.005	.018	.032	.045	.058	.071	.084	.097	.110	.123	.137	.150	35
36	-.008	.005	.019	.032	.046	.059	.073	.086	.100	.114	.127	.141	.154	36
37	-.008	.006	.019	.033	.047	.061	.075	.089	.103	.117	.131	.145	.158	37
38	-.009	.006	.020	.034	.049	.063	.077	.091	.106	.120	.134	.149	.163	38
39	-.009	.006	.021	.035	.050	.065	.079	.094	.109	.123	.138	.153	.167	39
40	-.009	+.006	+.021	+.036	+.051	+.066	+.081	+.096	+.111	+.126	+.142	+.157	+.172	40

Dew Point
Pressure
Correction.

TABLE IV.—*Vapor pressure, in inches.*

Dew point.	Vapor pressure.										
—60	.0010	—30	.0069	0	.038	30	.164	60	.517	90	1.408
—59	.0011	—29	.0074	1	.040	31	.172	61	.536	91	1.453
—58	.0012	—28	.0078	2	.043	32	.180	62	.555	92	1.499
—57	.0013	—27	.0084	3	.045	33	.187	63	.575	93	1.546
—56	.0013	—26	.0089	4	.047	34	.195	64	.595	94	1.595
—55	.0015	—25	.0094	5	.049	35	.203	65	.616	95	1.645
—54	.0016	—24	.010	6	.052	36	.211	66	.638	96	1.696
—53	.0017	—23	.011	7	.054	37	.219	67	.660	97	1.749
—52	.0018	—22	.011	8	.057	38	.228	68	.684	98	1.803
—51	.0019	—21	.012	9	.060	39	.237	69	.707	99	1.859
—50	.0021	—20	.013	10	.063	40	.246	70	.732	100	1.916
—49	.0022	—19	.013	11	.067	41	.256	71	.757	101	1.975
—48	.0024	—18	.014	12	.070	42	.266	72	.783	102	2.035
—47	.0026	—17	.015	13	.074	43	.277	73	.810	103	2.097
—46	.0027	—16	.016	14	.077	44	.287	74	.838	104	2.160
—45	.0029	—15	.017	15	.081	45	.298	75	.866	105	2.225
—44	.0031	—14	.018	16	.085	46	.310	76	.896	106	2.292
—43	.0033	—13	.019	17	.089	47	.322	77	.926	107	2.360
—42	.0035	—12	.020	18	.093	48	.334	78	.957	108	2.431
—41	.0037	—11	.021	19	.098	49	.347	79	.989	109	2.503
—40	.0039	—10	.022	20	.103	50	.360	80	1.022	110	2.576
—39	.0041	—9	.023	21	.108	51	.373	81	1.056	111	2.652
—38	.0044	—8	.025	22	.113	52	.387	82	1.091	112	2.730
—37	.0046	—7	.026	23	.119	53	.402	83	1.127	113	2.810
—36	.0048	—6	.028	24	.125	54	.417	84	1.163	114	2.891
—35	.0051	—5	.029	25	.130	55	.432	85	1.202	115	2.975
—34	.0054	—4	.031	26	.137	56	.448	86	1.241	116	3.061
—33	.0058	—3	.033	27	.143	57	.465	87	1.281	117	3.148
—32	.0061	—2	.034	28	.150	58	.481	88	1.322	118	3.239
—31	.0065	—1	.036	29	.157	59	.499	89	1.364	119	3.331

Vapor
Pres-
sure.

TABLE V.—*Grains of water-vapor contained in a cubic foot of air.*

Dew point.	0	1	2	3	4	5	6	7	8	9
-20	.219									
-10	.356	.340	.324	.309	.294	.281	.267	.254	.242	.231
0	.564	.540	.516	.493	.471	.450	.430	.411	.391	.374
+0	.564	.590	.617	.645	.674	.705	.735	.767	.801	.837
10	.873	.910	.950	.991	1.033	1.075	1.122	1.169	1.217	1.268
20	1.321	1.374	1.430	1.488	1.550	1.611	1.675	1.743	1.812	1.884
30	1.958	2.034	2.113	2.194	2.279	2.366	2.457	2.550	2.646	2.746
40	2.849	2.955	3.064	3.177	3.294	3.414	3.539	3.667	3.800	3.936
50	4.076	4.222	4.372	4.526	4.685	4.849	5.018	5.191	5.371	5.555
60	5.744	5.941	6.142	6.350	6.563	6.782	7.009	7.241	7.480	7.726
70	7.980	8.240	8.508	8.782	9.065	9.356	9.655	9.961	10.277	10.601
80	10.933	11.275	11.626	11.987	12.356	12.736	13.127	13.576	13.937	14.358
90	14.791	15.234	15.688	16.155	16.634	17.124	17.626	18.142	18.671	19.212
100	19.766	20.335	20.917	21.514	22.125	22.751				

TABLE VI.—*Reduction of barometer reading to 32°.*

Tempera- ture.	Inches.														
	24.0	24.5	25.0	25.5	26.0	26.5	27.0	27.5	28.0	28.5	29.0	29.5	30.0	30.5	31.0
0	+.063	+.064	+.065	+.067	+.068	+.069	+.070	+.072	+.073	+.075	+.076	+.077	+.078	+.080	+.081
1	.060	.062	.063	.064	.065	.067	.068	.069	.070	.072	.073	.074	.076	.077	.078
2	.058	.060	.061	.062	.063	.065	.066	.068	.069	.070	.072	.073	.074	.075	
3	.056	.057	.058	.060	.061	.062	.063	.064	.065	.066	.068	.069	.070	.071	.072
4	.054	.055	.056	.057	.058	.060	.061	.062	.063	.064	.065	.066	.067	.068	.070
5	.052	.052	.054	.055	.056	.057	.058	.059	.060	.062	.062	.063	.065	.065	.067
6	.049	.051	.052	.052	.054	.055	.056	.057	.058	.059	.060	.061	.062	.063	.064
7	.047	.048	.049	.050	.051	.052	.053	.054	.055	.056	.057	.058	.059	.060	.061
8	.045	.046	.047	.048	.049	.050	.051	.052	.053	.054	.054	.055	.056	.057	.058
9	.043	.044	.045	.046	.046	.047	.048	.049	.050	.051	.052	.053	.054	.054	.055
10	.041	.042	.042	.043	.044	.045	.046	.047	.047	.048	.049	.050	.051	.052	.053
11	.039	.039	.040	.041	.042	.042	.043	.044	.045	.046	.047	.047	.048	.049	.050
12	.036	.037	.038	.038	.039	.040	.041	.041	.042	.043	.044	.045	.045	.046	.047
13	.034	.035	.036	.036	.037	.038	.038	.039	.040	.040	.041	.042	.043	.043	.044
14	.032	.033	.033	.034	.035	.035	.036	.036	.037	.038	.039	.039	.040	.040	.041
15	.030	.030	.031	.031	.032	.033	.033	.034	.035	.035	.036	.036	.037	.038	.038
16	.028	.028	.029	.029	.030	.030	.031	.031	.032	.033	.033	.034	.035	.035	.036
17	.025	.026	.026	.027	.027	.028	.029	.029	.030	.030	.031	.031	.032	.032	.033
18	.023	.024	.024	.025	.025	.026	.026	.026	.027	.027	.028	.029	.030	.030	
19	.021	.022	.022	.022	.023	.023	.024	.024	.025	.025	.025	.026	.027	.027	.027
20	.019	.019	.020	.020	.020	.021	.021	.021	.022	.022	.023	.023	.024	.024	.024
21	.017	.017	.017	.018	.018	.018	.019	.019	.019	.020	.020	.020	.021	.021	.022
22	.014	.015	.015	.015	.016	.016	.016	.017	.017	.017	.017	.018	.018	.018	.019
23	.012	.013	.013	.013	.013	.014	.014	.014	.014	.015	.015	.015	.015	.016	.016
24	.010	.010	.011	.011	.011	.011	.011	.012	.012	.012	.012	.012	.013	.013	.013
25	.008	.008	.008	.008	.009	.009	.009	.009	.009	.009	.010	.010	.010	.010	.010
26	.006	.006	.006	.006	.006	.006	.006	.007	.007	.007	.007	.007	.007	.007	.007
27	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.005	.005
28	+.001	+.001	+.001	+.001	+.001	+.002	+.002	+.002	+.002	+.002	+.002	+.002	+.002	+.002	+.002
29	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001
30	.003	.003	.003	.003	.003	.003	.003	.003	.004	.004	.004	.004	.004	.004	.004
31	.005	.005	.005	.005	.006	.006	.006	.006	.006	.006	.006	.006	.006	.007	.007
32	.007	.008	.008	.008	.008	.008	.008	.009	.009	.009	.009	.009	.009	.009	.009
33	.010	.010	.010	.010	.010	.010	.011	.011	.011	.011	.012	.012	.012	.012	.012
34	.012	.012	.012	.012	.013	.013	.013	.014	.014	.014	.014	.015	.015	.015	.015
35	.014	.014	.014	.015	.015	.016	.016	.016	.016	.017	.017	.017	.018	.018	
36	.016	.016	.017	.017	.017	.018	.018	.018	.019	.019	.020	.020	.020	.021	
37	.018	.019	.019	.019	.020	.020	.021	.021	.021	.022	.022	.023	.023	.024	
38	.020	.021	.021	.022	.022	.023	.023	.024	.024	.025	.025	.026	.026	.026	
39	.023	.023	.024	.024	.025	.025	.026	.026	.027	.027	.028	.028	.029	.029	
40	.025	.025	.026	.026	.027	.027	.028	.028	.029	.030	.030	.030	.031	.031	.032
41	.027	.027	.028	.029	.030	.030	.030	.031	.031	.032	.033	.033	.034	.034	.035
42	.029	.030	.030	.031	.032	.032	.033	.033	.034	.034	.035	.036	.036	.037	.038
43	.031	.032	.033	.033	.034	.035	.035	.036	.037	.038	.038	.039	.040	.040	
44	.033	.034	.035	.035	.036	.037	.038	.038	.039	.040	.041	.042	.042	.043	
45	.036	.037	.037	.038	.039	.039	.040	.041	.042	.042	.043	.044	.045	.045	.046
46	.038	.038	.039	.040	.041	.042	.043	.043	.044	.045	.046	.046	.047	.048	.049
47	.040	.041	.042	.042	.043	.044	.045	.046	.047	.048	.048	.049	.050	.051	.052
48	.042	.043	.044	.045	.046	.047	.047	.048	.049	.050	.051	.052	.053	.053	.054
49	.044	.045	.046	.047	.048	.049	.050	.051	.052	.052	.054	.054	.055	.056	.057
50	-.046	-.047	-.048	-.049	-.050	-.051	-.052	-.053	-.054	-.055	-.056	-.057	-.058	-.059	-.060

TABLE VI—*Reduction of barometer reading to 32°—Continued.*

Tempera- ture.	Inches.														
	24.0	24.5	25.0	25.5	26.0	26.5	27.0	27.5	28.0	28.5	29.0	29.5	30.0	30.5	31.0
50	-.046	-.047	-.048	-.049	-.050	-.051	-.052	-.053	-.054	-.055	-.056	-.057	-.058	-.059	-.060
51	.049	.050	.051	.052	.053	.054	.055	.056	.057	.058	.059	.060	.061	.062	.063
52	.051	.052	.053	.054	.055	.056	.057	.058	.059	.060	.061	.062	.064	.065	.066
53	.053	.054	.055	.056	.057	.058	.060	.061	.062	.063	.064	.065	.066	.067	.068
54	.055	.056	.057	.058	.060	.061	.062	.063	.064	.065	.067	.068	.069	.070	.071
55	.057	.058	.060	.061	.062	.063	.064	.065	.066	.068	.069	.070	.071	.073	.074
56	.060	.061	.062	.063	.064	.065	.067	.068	.069	.070	.072	.073	.074	.075	.077
57	.062	.063	.064	.065	.067	.068	.069	.070	.072	.073	.075	.076	.077	.078	.080
58	.064	.065	.066	.068	.069	.070	.071	.073	.074	.076	.077	.078	.080	.081	.082
59	.066	.068	.069	.070	.072	.073	.074	.075	.077	.078	.080	.081	.083	.084	.085
60	.068	.070	.071	.072	.074	.076	.077	.078	.079	.081	.082	.084	.085	.086	.088
61	.070	.072	.073	.074	.076	.077	.079	.080	.082	.083	.085	.086	.088	.089	.091
62	.073	.074	.076	.077	.079	.080	.082	.083	.085	.086	.088	.089	.091	.092	.094
63	.075	.076	.078	.079	.081	.082	.084	.085	.087	.088	.090	.091	.093	.095	.096
64	.077	.078	.080	.081	.083	.085	.086	.088	.090	.091	.093	.094	.096	.097	.099
65	.079	.080	.082	.084	.086	.087	.089	.090	.092	.093	.095	.097	.099	.100	.102
66	.081	.083	.085	.086	.088	.089	.091	.093	.095	.096	.098	.099	.101	.103	.105
67	.083	.085	.087	.088	.090	.092	.094	.095	.097	.099	.101	.102	.104	.106	.108
68	.085	.087	.089	.090	.093	.094	.096	.098	.100	.101	.103	.105	.107	.108	.110
69	.088	.089	.091	.093	.095	.097	.099	.100	.102	.104	.106	.107	.110	.111	.113
70	.090	.092	.094	.096	.097	.099	.101	.103	.105	.106	.109	.110	.112	.114	.116
71	.092	.094	.096	.098	.100	.101	.103	.105	.107	.109	.111	.113	.115	.116	.119
72	.094	.096	.098	.100	.102	.104	.106	.108	.110	.112	.114	.116	.118	.120	.122
73	.096	.098	.100	.102	.104	.106	.108	.110	.112	.114	.116	.118	.120	.122	.124
74	.098	.100	.103	.105	.107	.109	.111	.113	.115	.117	.119	.121	.123	.125	.127
75	.101	.102	.105	.106	.109	.111	.113	.115	.117	.119	.122	.124	.126	.128	.130
76	.103	.104	.107	.109	.111	.113	.116	.118	.120	.122	.124	.126	.128	.130	.133
77	.105	.107	.109	.111	.114	.116	.118	.120	.122	.124	.127	.129	.131	.133	.136
78	.107	.109	.112	.113	.116	.118	.120	.122	.125	.127	.129	.131	.134	.136	.138
79	.109	.111	.114	.116	.118	.120	.123	.125	.127	.129	.132	.134	.137	.139	.141
80	.111	.113	.116	.118	.121	.123	.125	.127	.130	.132	.135	.137	.139	.141	.144
81	.114	.116	.118	.120	.123	.125	.128	.130	.132	.134	.137	.139	.142	.144	.147
82	.116	.118	.121	.122	.125	.128	.130	.132	.135	.137	.140	.142	.145	.147	.149
83	.118	.120	.123	.125	.128	.130	.133	.135	.138	.140	.142	.145	.147	.149	.152
84	.120	.122	.125	.127	.130	.132	.135	.138	.140	.142	.145	.147	.150	.152	.155
85	.122	.124	.127	.129	.132	.134	.137	.139	.143	.145	.148	.150	.153	.155	.158
86	.124	.126	.128	.130	.135	.137	.140	.143	.145	.148	.150	.153	.155	.158	.161
87	.126	.129	.132	.134	.137	.139	.142	.144	.148	.150	.153	.155	.158	.161	.163
88	.129	.131	.134	.137	.139	.142	.145	.147	.150	.152	.155	.158	.161	.163	.166
89	.131	.133	.136	.139	.142	.144	.147	.150	.153	.155	.158	.161	.164	.166	.169
90	.133	.136	.138	.141	.144	.147	.150	.153	.155	.157	.161	.164	.166	.169	.172
91	.135	.138	.141	.143	.146	.149	.152	.155	.158	.160	.163	.166	.169	.172	.175
92	.137	.140	.143	.146	.149	.152	.154	.157	.160	.163	.166	.169	.172	.175	.177
93	.139	.142	.145	.148	.151	.154	.157	.160	.163	.166	.168	.171	.174	.177	.180
94	.142	.145	.147	.150	.153	.156	.159	.162	.165	.168	.171	.174	.177	.180	.183
95	.144	.147	.150	.153	.156	.159	.162	.165	.168	.171	.174	.177	.180	.183	.186
96	.146	.149	.152	.155	.158	.161	.164	.167	.170	.173	.176	.179	.182	.185	.188
97	.148	.151	.154	.157	.160	.164	.167	.170	.173	.176	.179	.182	.185	.188	.191
98	.150	.153	.156	.160	.163	.166	.169	.172	.175	.178	.181	.185	.188	.191	.194
99	.152	.155	.159	.162	.165	.168	.171	.175	.178	.181	.184	.187	.190	.194	.197
100	-.154	-.157	-.161	-.164	-.167	-.171	-.174	-.177	-.180	-.184	-.187	-.190	-.193	-.197	-.200

TABLE VII.—Table for reducing observations of the barometer to sea-level, correction additive.

Height, in feet.	Temperature of external air—degrees Fahrenheit.												
	—20°	—10°	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
10	.013	.013	.012	.012	.012	.011	.011	.011	.011	.010	.010	.010	.010
20	.026	.025	.025	.024	.023	.023	.023	.022	.022	.021	.021	.020	.020
30	.039	.038	.037	.036	.035	.034	.034	.033	.032	.032	.031	.030	.030
40	.052	.050	.049	.048	.047	.046	.045	.044	.043	.042	.041	.040	.040
50	.065	.063	.061	.060	.059	.058	.056	.055	.054	.053	.052	.051	.050
60	.077	.076	.074	.072	.070	.069	.068	.066	.065	.063	.062	.061	.059
70	.090	.088	.086	.084	.082	.081	.078	.077	.076	.074	.072	.071	.069
80	.103	.101	.098	.096	.094	.092	.090	.088	.086	.084	.082	.081	.079
90	.116	.113	.111	.108	.105	.104	.101	.099	.097	.095	.093	.091	.089
100	.129	.126	.123	.120	.117	.115	.112	.110	.108	.105	.103	.101	.099
110	.142	.139	.135	.132	.129	.126	.123	.121	.119	.116	.113	.111	.109
120	.155	.151	.148	.144	.140	.138	.134	.132	.129	.126	.124	.121	.119
130	.168	.164	.160	.156	.152	.149	.146	.143	.140	.137	.134	.131	.129
140	.181	.176	.172	.168	.164	.161	.157	.154	.151	.147	.144	.141	.139
150	.194	.189	.185	.180	.176	.172	.168	.165	.162	.158	.155	.152	.149
160	.206	.201	.197	.192	.187	.183	.179	.176	.172	.168	.165	.162	.158
170	.219	.214	.209	.204	.199	.195	.190	.187	.183	.179	.175	.172	.168
180	.232	.227	.222	.216	.211	.206	.202	.198	.194	.189	.185	.182	.178
190	.245	.239	.234	.228	.222	.218	.213	.209	.204	.200	.196	.192	.188
200	.258	.252	.246	.240	.234	.229	.224	.220	.215	.210	.206	.202	.198
210	.271	.264	.258	.252	.246	.240	.235	.231	.226	.221	.216	.212	.208
220	.284	.277	.270	.264	.257	.252	.246	.242	.236	.231	.227	.222	.218
230	.296	.289	.283	.276	.269	.263	.257	.253	.247	.242	.237	.232	.228
240	.309	.302	.295	.288	.281	.275	.269	.264	.258	.252	.248	.242	.238
250	.322	.314	.307	.300	.293	.286	.280	.275	.269	.263	.258	.253	.248
260	.335	.327	.319	.311	.304	.297	.291	.285	.279	.273	.268	.263	.257
270	.348	.339	.331	.323	.316	.309	.302	.296	.290	.284	.278	.273	.267
280	.360	.352	.344	.335	.328	.320	.314	.307	.301	.294	.288	.283	.277
290	.373	.364	.356	.347	.339	.332	.325	.318	.311	.305	.299	.293	.287
300	.386	.377	.368	.359	.351	.343	.336	.329	.322	.315	.309	.303	.297
310	.399	.389	.380	.371	.363	.354	.347	.340	.333	.326	.319	.313	.307
320	.412	.402	.392	.383	.374	.366	.358	.351	.343	.336	.329	.323	.317
330	.424	.414	.404	.395	.386	.377	.369	.362	.354	.347	.340	.333	.326
340	.437	.427	.416	.407	.397	.389	.380	.373	.365	.357	.350	.343	.336
350	.450	.439	.429	.419	.409	.400	.392	.384	.376	.368	.360	.353	.346
360	.463	.451	.441	.430	.421	.411	.403	.394	.386	.378	.370	.363	.356
370	.476	.464	.453	.442	.432	.423	.414	.405	.397	.389	.380	.373	.366
380	.488	.476	.465	.454	.444	.434	.425	.416	.408	.399	.391	.383	.375
390	.501	.489	.477	.466	.455	.446	.436	.427	.418	.410	.401	.393	.385
400	.514	.501	.489	.478	.467	.457	.447	.438	.429	.420	.411	.403	.395
410	.527	.513	.501	.490	.479	.468	.458	.449	.440	.430	.421	.413	.405
420	.539	.526	.513	.502	.490	.480	.469	.460	.450	.441	.431	.423	.415
430	.552	.538	.525	.513	.502	.491	.480	.470	.461	.451	.442	.433	.425
440	.565	.551	.537	.525	.513	.502	.491	.481	.471	.462	.452	.443	.434
450	.578	.563	.550	.537	.525	.513	.503	.492	.482	.472	.462	.453	.444
460	.590	.575	.562	.549	.537	.525	.514	.503	.493	.482	.472	.463	.454
470	.603	.588	.574	.561	.548	.536	.525	.514	.503	.493	.482	.473	.464
480	.616	.600	.586	.572	.560	.547	.536	.524	.514	.503	.493	.483	.474
490	.628	.613	.598	.584	.571	.559	.547	.535	.524	.514	.503	.493	.483
500	.641	.625	.610	.596	.583	.570	.558	.546	.535	.524	.513	.503	.493
510	.654	.637	.622	.608	.594	.581	.569	.557	.545	.534	.523	.513	.503
520	.666	.650	.634	.620	.606	.593	.580	.568	.556	.545	.533	.523	.513
530	.679	.662	.646	.631	.617	.604	.591	.578	.566	.555	.544	.533	.522
540	.691	.675	.658	.643	.629	.615	.602	.589	.577	.565	.554	.543	.532
550	.704	.687	.670	.655	.640	.626	.613	.600	.587	.575	.564	.553	.542
560	.717	.699	.683	.667	.652	.638	.624	.611	.598	.586	.574	.563	.552
570	.729	.712	.695	.679	.663	.649	.635	.622	.608	.596	.584	.573	.562
580	.742	.724	.707	.690	.675	.660	.646	.632	.619	.606	.595	.583	.571
590	.754	.737	.719	.702	.686	.672	.657	.643	.629	.617	.605	.593	.581
600	.767	.749	.731	.714	.698	.683	.668	.654	.640	.627	.615	.603	.591
610	.780	.761	.743	.726	.709	.694	.679	.665	.650	.637	.625	.613	.601
620	.792	.774	.755	.738	.721	.705	.690	.675	.661	.648	.635	.623	.611
630	.805	.786	.767	.749	.732	.717	.701	.686	.671	.658	.645	.633	.620
640	.817	.798	.779	.761	.744	.728	.712	.697	.682	.668	.655	.643	.630

TABLE VII.—For reducing observations, etc.—Continued.

Height, in feet.	Temperature of external air—degrees Fahrenheit.													
	—20°	—10°	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°	
650	.830	.811	.791	.773	.755	.739	.723	.708	.692	.679	.666	.653	.640	
660	.843	.823	.803	.785	.767	.750	.734	.718	.703	.689	.676	.662	.650	
670	.855	.835	.815	.797	.778	.761	.745	.729	.713	.699	.686	.672	.660	
680	.868	.847	.827	.808	.790	.773	.756	.740	.724	.709	.696	.682	.669	
690	.880	.860	.839	.820	.801	.784	.767	.750	.734	.720	.706	.692	.679	
700	.893	.872	.851	.832	.813	.795	.778	.761	.745	.730	.716	.702	.689	
710	.905	.884	.863	.844	.824	.806	.789	.772	.755	.740	.726	.712	.698	
720	.918	.896	.875	.855	.836	.817	.800	.782	.766	.751	.736	.722	.708	
730	.930	.909	.887	.867	.847	.829	.811	.793	.776	.761	.746	.732	.718	
740	.943	.921	.899	.879	.859	.840	.822	.804	.787	.771	.756	.742	.728	
750	.955	.933	.911	.891	.870	.851	.833	.815	.797	.782	.767	.752	.738	
760	.968	.945	.922	.902	.881	.862	.843	.825	.808	.792	.777	.761	.747	
770	.980	.957	.934	.914	.893	.873	.854	.836	.818	.802	.787	.771	.757	
780	.993	.970	.946	.926	.904	.885	.865	.847	.829	.812	.797	.781	.767	
790	1.005	.982	.958	.937	.916	.896	.876	.857	.839	.823	.807	.791	.776	
800	1.018	.994	.970	.949	.927	.907	.887	.868	.850	.833	.817	.801	.786	
810	1.030	1.006	.982	.961	.938	.918	.898	.878	.860	.843	.827	.811	.796	
820	1.043	1.018	.994	.972	.950	.929	.909	.889	.871	.854	.837	.821	.805	
830	1.055	1.031	1.006	.984	.961	.940	.920	.900	.881	.864	.847	.831	.815	
840	1.068	1.043	1.018	.995	.973	.951	.931	.911	.892	.874	.857	.841	.825	
850	1.080	1.055	1.030	1.007	.984	.962	.942	.922	.902	.885	.867	.851	.835	
860	1.093	1.067	1.041	1.019	.995	.974	.952	.932	.913	.895	.877	.860	.844	
870	1.105	1.079	1.053	1.030	1.007	.985	.963	.943	.923	.905	.887	.870	.854	
880	1.118	1.092	1.065	1.042	1.018	.996	.974	.954	.934	.915	.897	.880	.864	
890	1.130	1.104	1.077	1.053	1.030	1.007	.985	.964	.944	.926	.907	.890	.873	
900	1.143	1.116	1.089	1.065	1.041	1.018	.996	.975	.955	.936	.917	.900	.883	
910	1.155	1.128	1.101	1.077	1.052	1.029	1.007	.986	.965	.946	.927	.910	.893	
920	1.168	1.140	1.113	1.088	1.064	1.040	1.018	.996	.976	.956	.937	.920	.902	
930	1.180	1.152	1.125	1.100	1.075	1.051	1.029	1.007	.986	.967	.947	.929	.912	
940	1.193	1.164	1.137	1.111	1.086	1.062	1.040	1.017	.997	.977	.957	.939	.921	
950	1.205	1.177	1.149	1.123	1.098	1.074	1.051	1.028	1.007	.987	.967	.949	.931	
960	1.217	1.189	1.160	1.135	1.109	1.085	1.061	1.039	1.017	.997	.977	.959	.941	
970	1.230	1.201	1.172	1.146	1.120	1.096	1.072	1.049	1.028	1.007	.987	.969	.950	
980	1.242	1.213	1.184	1.158	1.131	1.107	1.083	1.060	1.038	1.018	.997	.978	.960	
990	1.255	1.225	1.196	1.169	1.143	1.118	1.094	1.070	1.049	1.028	1.007	.988	.969	
1,000	1.267	1.237	1.208	1.181	1.154	1.129	1.105	1.081	1.059	1.038	1.017	.998	.979	
1,010	1.279	1.249	1.220	1.192	1.165	1.140	1.116	1.092	1.069	1.048	1.027	1.008	.989	
1,020	1.292	1.261	1.232	1.204	1.177	1.151	1.127	1.102	1.080	1.058	1.037	1.018	.998	
1,030	1.304	1.273	1.243	1.215	1.188	1.162	1.137	1.113	1.090	1.069	1.047	1.027	1.008	
1,040	1.317	1.285	1.255	1.227	1.199	1.173	1.148	1.123	1.101	1.079	1.057	1.037	1.017	
1,050	1.329	1.298	1.267	1.238	1.211	1.184	1.159	1.134	1.111	1.089	1.067	1.047	1.027	
1,060	1.341	1.310	1.279	1.250	1.222	1.195	1.170	1.145	1.121	1.099	1.077	1.057	1.037	
1,070	1.354	1.322	1.291	1.261	1.233	1.206	1.181	1.155	1.132	1.109	1.087	1.067	1.046	
1,080	1.366	1.334	1.302	1.273	1.244	1.217	1.191	1.166	1.142	1.120	1.097	1.076	1.056	
1,090	1.379	1.346	1.314	1.284	1.256	1.228	1.202	1.176	1.153	1.130	1.107	1.086	1.065	
1,100	1.391	1.358	1.326	1.296	1.267	1.239	1.213	1.187	1.163	1.140	1.117	1.096	1.075	
1,110	1.403	1.370	1.338	1.307	1.278	1.250	1.224	1.198	1.173	1.150	1.127	1.106	1.085	
1,120	1.416	1.382	1.350	1.319	1.289	1.261	1.235	1.208	1.184	1.160	1.137	1.115	1.094	
1,130	1.428	1.394	1.361	1.330	1.301	1.272	1.245	1.219	1.194	1.170	1.147	1.125	1.104	
1,140	1.440	1.406	1.373	1.342	1.312	1.283	1.256	1.229	1.204	1.180	1.157	1.135	1.113	
1,150	1.453	1.418	1.385	1.353	1.323	1.294	1.267	1.240	1.215	1.191	1.167	1.145	1.123	
1,160	1.465	1.430	1.397	1.365	1.334	1.305	1.278	1.251	1.225	1.201	1.177	1.154	1.133	
1,170	1.477	1.442	1.409	1.376	1.345	1.315	1.289	1.261	1.235	1.211	1.187	1.164	1.142	
1,180	1.489	1.454	1.420	1.388	1.357	1.327	1.299	1.272	1.245	1.221	1.197	1.174	1.152	
1,190	1.502	1.466	1.432	1.399	1.368	1.338	1.310	1.282	1.256	1.231	1.207	1.183	1.161	
1,200	1.514	1.478	1.444	1.411	1.379	1.349	1.321	1.293	1.266	1.241	1.217	1.193	1.171	
1,210	1.526	1.490	1.456	1.422	1.390	1.360	1.332	1.303	1.276	1.251	1.227	1.203	1.180	
1,220	1.539	1.502	1.467	1.434	1.401	1.371	1.342	1.314	1.288	1.261	1.237	1.212	1.190	
1,230	1.551	1.514	1.479	1.445	1.413	1.382	1.353	1.324	1.297	1.271	1.247	1.222	1.199	
1,240	1.563	1.526	1.491	1.457	1.424	1.393	1.364	1.335	1.307	1.281	1.257	1.232	1.209	
1,250	1.576	1.538	1.502	1.468	1.435	1.404	1.374	1.345	1.317	1.291	1.266	1.242	1.218	
1,260	1.588	1.550	1.514	1.479	1.446	1.415	1.385	1.356	1.328	1.302	1.276	1.251	1.228	
1,270	1.600	1.562	1.526	1.491	1.457	1.426	1.396	1.366	1.338	1.312	1.286	1.261	1.237	
1,280	1.612	1.574	1.538	1.502	1.469	1.437	1.407	1.377	1.348	1.322	1.296	1.271	1.247	
1,290	1.625	1.586	1.549	1.514	1.480	1.448	1.417	1.387	1.359	1.332	1.306	1.280	1.256	

TABLE VII.—*For reducing observations, etc.—Continued.*

Height, in feet.	Temperature of external air—degrees Fahrenheit.												
	—20°	—10°	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
1,300	1.637	1.598	1.561	1.525	1.491	1.459	1.428	1.398	1.369	1.342	1.316	1.290	1.266
1,310	1.649	1.610	1.573	1.536	1.502	1.470	1.439	1.408	1.379	1.352	1.326	1.300	1.275
1,320	1.661	1.622	1.584	1.548	1.513	1.481	1.449	1.419	1.390	1.362	1.336	1.309	1.285
1,330	1.674	1.634	1.596	1.559	1.525	1.492	1.460	1.429	1.400	1.372	1.346	1.319	1.294
1,340	1.686	1.646	1.608	1.571	1.536	1.503	1.471	1.440	1.410	1.382	1.356	1.329	1.304
1,350	1.698	1.658	1.620	1.582	1.547	1.514	1.482	1.450	1.420	1.393	1.366	1.339	1.313
1,360	1.710	1.669	1.631	1.593	1.558	1.524	1.492	1.461	1.431	1.403	1.375	1.348	1.323
1,370	1.722	1.681	1.643	1.605	1.569	1.535	1.503	1.471	1.441	1.413	1.385	1.358	1.332
1,380	1.735	1.693	1.655	1.616	1.581	1.546	1.514	1.482	1.451	1.423	1.395	1.368	1.342
1,390	1.747	1.705	1.666	1.628	1.592	1.557	1.524	1.492	1.462	1.433	1.405	1.377	1.351
1,400	1.759	1.717	1.678	1.639	1.603	1.568	1.535	1.503	1.472	1.443	1.415	1.387	1.361
1,410	1.771	1.729	1.690	1.650	1.614	1.579	1.546	1.513	1.482	1.453	1.425	1.397	1.370
1,420	1.783	1.741	1.701	1.662	1.625	1.590	1.556	1.524	1.492	1.463	1.435	1.406	1.380
1,430	1.796	1.753	1.713	1.673	1.636	1.601	1.567	1.534	1.503	1.473	1.444	1.416	1.389
1,440	1.808	1.765	1.724	1.685	1.647	1.612	1.577	1.545	1.513	1.483	1.454	1.426	1.399
1,450	1.820	1.777	1.736	1.696	1.658	1.623	1.588	1.555	1.523	1.493	1.464	1.436	1.408
1,460	1.832	1.788	1.748	1.707	1.670	1.633	1.599	1.565	1.533	1.503	1.474	1.445	1.418
1,470	1.844	1.800	1.759	1.719	1.681	1.644	1.609	1.576	1.543	1.513	1.484	1.455	1.427
1,480	1.857	1.812	1.771	1.730	1.692	1.655	1.620	1.586	1.554	1.523	1.493	1.465	1.437
1,490	1.869	1.824	1.782	1.742	1.703	1.666	1.630	1.597	1.564	1.533	1.503	1.474	1.446
1,500	1.881	1.836	1.794	1.753	1.714	1.677	1.641	1.607	1.574	1.543	1.513	1.484	1.456

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